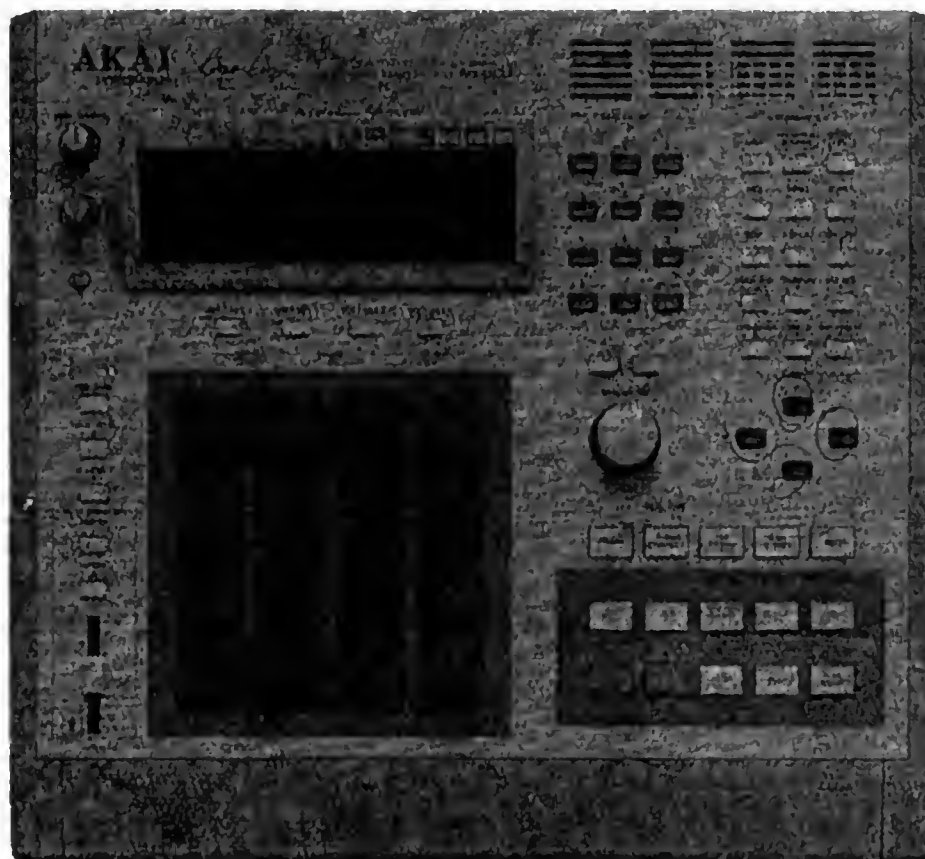# AKAI SERVICE MANUAL

MIDI PRODUCTION CENTER

MODEL **MPC3000**

★ SAFETY INSTRUCTIONS

## PRECAUTIONS DURING SERVICING

1. Parts identified by the △ (*) symbol are critical for safety. Replace them only with the parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with the specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts.
   Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap the ends of the wires securely around the terminals before soldering.
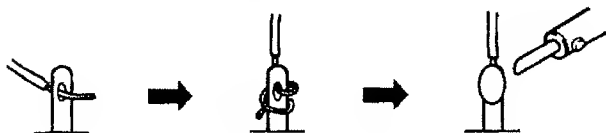
6. Make sure that wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 M ohms.

PRECAUTION FOR LITHIUM BATTERY

The lithium battery may explode when heated excessively.
[OBSERVE THE FOLLOWING WHEN REPLACING]
- Replace with the same make and type only.
- Use soldering iron in "recommended way" only.
- Place battery in correct polarity.
- Do not short the terminals.
- Do not charge battery.
- Do not dispose of battery in fire.

[DANGER]   [RECOMMENDED WAY]

★ INFORMATIONS

SYMBOLS FOR PRIMARY DESTINATION

Unit destinations are indicated with letters as shown below.

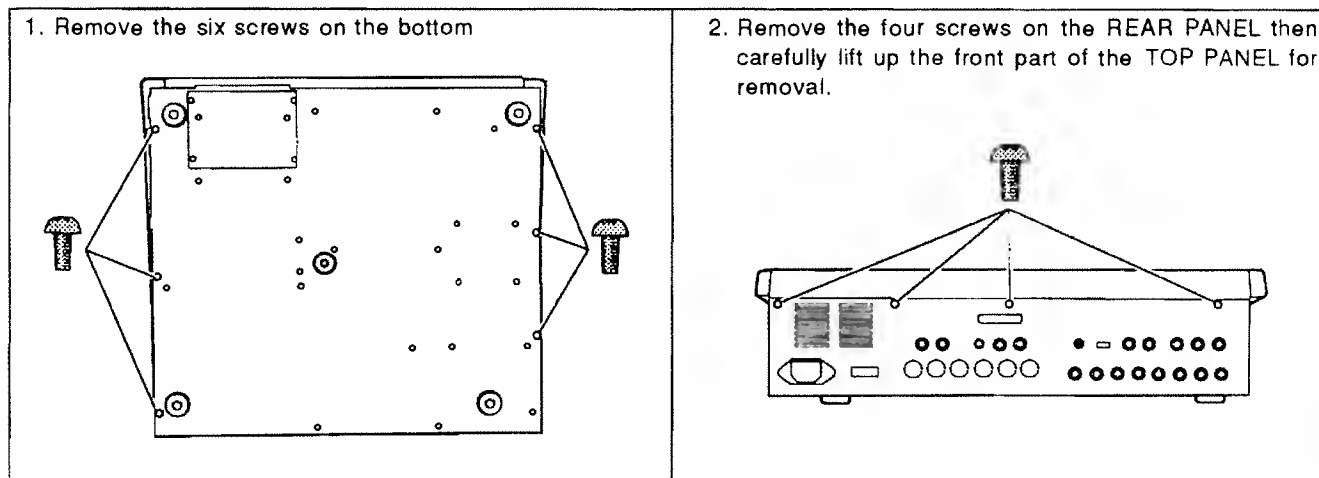| Symbols	Principal Destinations
A	U.S.A
B	U.K
C	Canada
E	Europe (except U.K)
J	Japan
S	Australia
V	Germany
U	Universal Area
Y*	Custom version

★ SPECIFICATIONS

Sound generator

Sampling rate .... 44.1kHz (frequency response: 20 Hz - 20 kHz)

Sampling capacity .... 2 MB standard (21.9 seconds mono or 10.9 seconds stereo), expandable to 16 MB (188.3 seconds mono or 94.1 seconds stereo)

Data format .... 16-bit linear

Dynamic filtering .... 12 dB/Octave dynamic resonant lowpass filter per voice

Maximum sounds in memory.... 128

Number of sound programs 24

Sound assignments per program ... 64

Simultaneous voices 32

Sequencer

Maximum notes 75,000

Resolution .... 96 parts per 1/4-note (ppq)

Sequences 99

Tracks per sequence 99

MIDI output channels .... 64 (16 channels x 4 output ports)

Song mode .... 20 songs, 250 steps per song

Drum pads .... 16 (velocity and pressure sensitive)

Drum pad banks 4

Sync modes .... MIDI Time Code, MIDI clock, FSK 24, 1/4-note clicks and SMPTE (optional). SMPTE frame rates supported are 24, 25, 29.97 drop and 30.

Rear Panel Inputs/Outputs

Record input sensitivity (both L and R)

HI gain .... −58 dBs/45 k ohms

MID gain .... −38 dBs/45 k ohms

LO gain .... −18 dBs/45 k ohms

Digital sampling input .... S/PDIF

Stereo output level .... 6 dBm/600 ohms

Level of 8 individual outputs ..... 6 dBm/600 ohms

Sync/Trigger input level ..... 0.5 Vp-p level (with input control at maximum)

Sync output level .... 2.5 Vp-p/600 ohms

MIDI inputs .... 2 (mergeable)

MIDI outputs .... 4 (independent)

SCSI port .... 1 (25-pin D-sub connector)

Headphone output 1

Foot switch inputs .... 2 (independently assignable)

General

Display .... 320 character (240 x 64 dot graphic) LCD

Disk drive .... 3.5 inch HD (1.44 MB formatted)

CPU .... V53/16 MHz

Dimensions .... 440 (W) x 121 (H) x 405 (D) mm

Weight .... 9 kg

Power requirements .... AC 100 V, 50/60 Hz for Japan AC 120 V, 60 Hz for U.S.A. and Canada AC 220 - 240 V, 50 Hz for Europe

Power consumption .... 27 W for Japan 40 W for other countries

Accessories

Standard accessories

3.5 inch disk .... x 4 (Disk #1 to #4 : Drum sound data)

AC cord .... x 1

Operator's manual ..... x 1

Optional accessory

EXM3008(Memory Expantion Board)

IB-CRT (Interface Board for external VGA monitoring)

I-0055 (SMPTE timecode reading IC)

0dBs = 0.775 V_{RMS}

✳ For improvement purposes, specifications .d design are subject to change without notice.

I. DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in the reverse order.

1. Remove the six screws on the bottom	2. Remove the four screws on the REAR PANEL then carefully lift up the front part of the TOP PANEL for removal.

II. PRINCIPAL PARTS LOCATION

OPERATION(B) PCB   OPERATION(A) PCB
DRUM PAD PCB

VOLUME PCB   LCD UNIT

CONT VR PCB   OPERATION(C) PCB
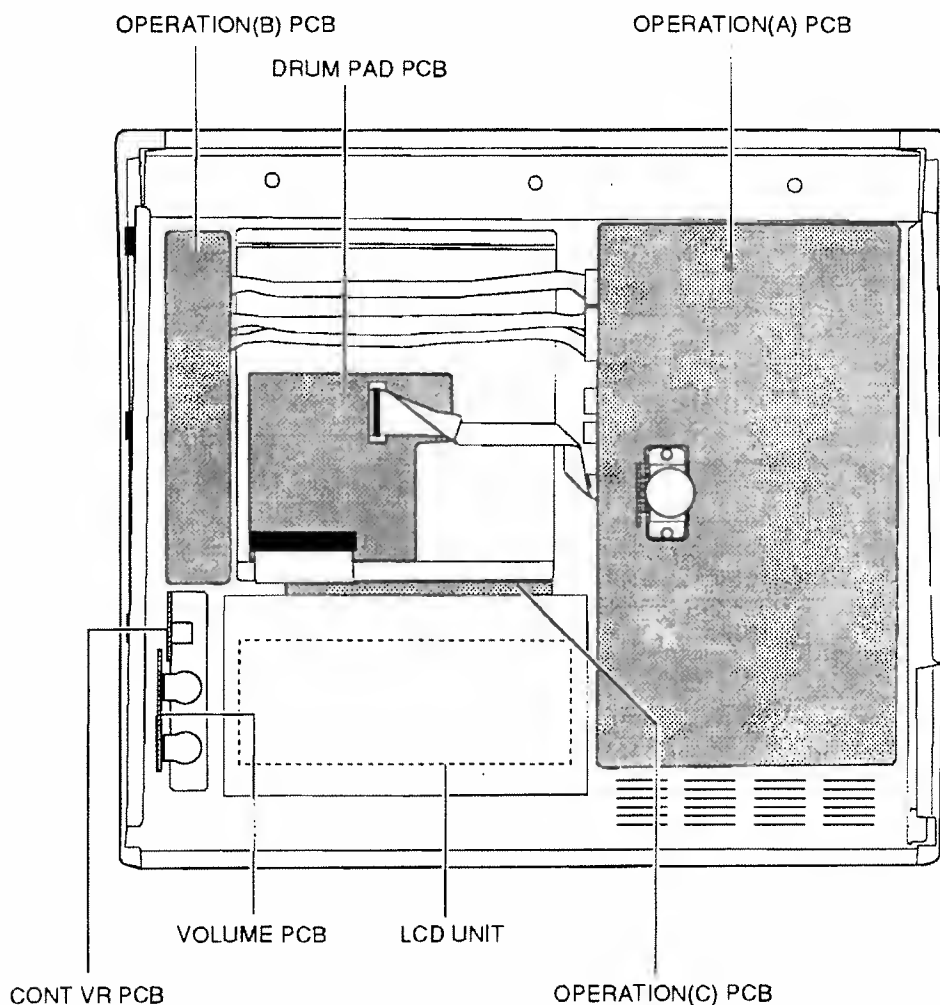
Fig. 2-1 Reverse side of the TOP PANEL BLOCK
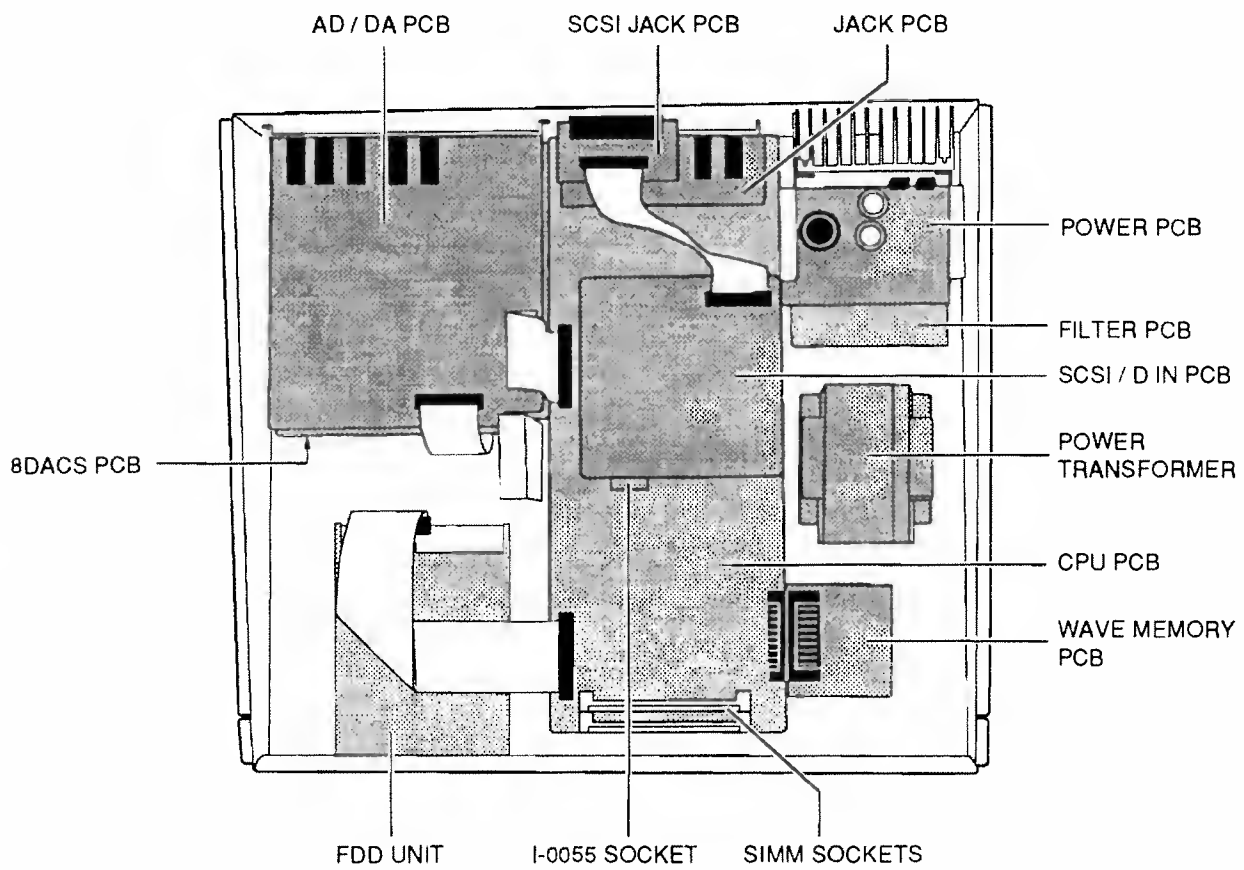
Fig. 2-2 Top view of the chassis

III. PARTS LIST

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

   a) Mechanism Block

2. HEAD BASE BLOCK

Ref. No.	Part. No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

— SP (Service Parts) Classification

— This number corresponds with the individual parts index number in the figure.

   b) PC Board

2. MAIN PC BOARD

Ref. No.	Part. No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination —
[A] : AAL (U.S.A)   [S] : SAA (Australia)
[B] : BEAB (England) [U] : U/T (Universal Area)
[C] : CSA (Canada)
[E] : CEE (Europe)   [V] : VDE (Germany)
[J] : JPN (Japan)   [Y] : Custom

— SP (Service Parts) Classification

— These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	BA-379695J1	PC PAD SENSOR
2	BB-428036J	FLOPPY DISK FD-235HF-3300
3	* BT-378272	TRANS PQW L4003 C,A [C,A]
4	* BT-378271	TRANS POW L4003 J [J]
5	* BT-419200J	TRANS POW L4012 E,V,B,S [E,V,B,S]
6	ED-417916J	D LED SLN-210VT RED T26
7	* ED-330319	D SILICON DBA10B 100/1.0A
8	* ED-383752J	D SILICON DBF40C 200V/4.0A
9	ED-389834J	D SILICON DS135E-FB2 F12 100/1
10	ED-344280	D SILICON H GMA-01-FY2 F05
11	ED-391103J	D ZENER H HZS12B2
12	ED-388358J	D ZENER H HZS5C2
13	* EF-355226	FUSE BET T 250V 1.00A [B]
14	* EF-359225	FUSE BET T 250V 3.15A [B]
15	* EF-358974	FUSE BET T 250V 630MA [B]
16	* EF-376821	FUSE ICP-N15 50V 0.6A
17	* EF-373142	FUSE ICP-N25 50V 1.0A
18	* EF-623103	FUSE SET T 250V 1.00A [E,V,S]
19	EF-691007	FUSE SET T 250V 3.15A [E,V,S]
20	* EF-601942	FUSE SET T 250V 630MA [E,V,S]
21	* EF-309387	FUSE TSC A 250V 1.00A [J]
22	* EF-306952	FUSE TSC A 250V 4.00A [J]
23	* EF-309388	FUSE TSC A 250V 800MA [J]
24	* EF-310229	FUSE TSC 125V 1.00A [C,A]
25	* EF-306957	FUSE TSC 125V 4.00A [C,A]
26	* EF-309391	FUSE TSC 125V 800MA [C,A]
27	EH-359185	COMP R RKC1/8B8 103J
28	EI-422329J	IC AK5328-VP
29	EI-419226J	IC AM27C020-150DC
30	EI-397343J	IC AM27C256-150DC
31	EI-386287J	IC HD74AC00P
32	EI-389050J	IC HD74AC32P
33	EI-386300J	IC HD74AC86P
34	EI-388711J	IC HD74HC00P
35	EI-387934J	IC HD74HC04P
36	EI-386303J	IC HD74HC08P
37	EI-386289J	IC HD74HC138P
38	EI-402126J	IC HD74HC155P
39	EI-419160J	IC HD74HC166P
40	EI-396510J	IC HD74HC173P
41	EI-387936J	IC HD74HC175P
42	EI-388712J	IC HD74HC245P
43	EI-393697J	IC HD74HC259P
44	EI-388709J	IC HD74HC32P
45	EI-393698J	IC HD74HC365P
46	EI-388567J	IC HD74HC573P
47	EI-413124J	IC HD74HC590P
48	EI-393702J	IC HD74HC595P
49	EI-416497J	IC HM658512LP-85
50	EI-378277	IC I-0055
51	EI-379605	IC LA6339
52	EI-405201J	IC LC3517BL-15
53	EI-416488J	IC LC3517BSL-15
54	EI-378276	IC LC7981
55	EI-397666J	IC LM2940CT-5.0

Ref. No.	Part No.	Description
56	EI-321606	IC LM393N
57	EI-413120J	IC L7A1045 L6028 DSP-A
58	EI-414848J	IC MB8116400-70PZ-G
59	EI-412247J	IC MB814400-80L PSZ-G
60	EI-372103	IC MB89254
61	EI-425713J	IC MB89255B-P-G
62	EI-388602J	IC MB89352A-P-G
63	EI-375185	IC M51953BL
64	EI-412283J	IC M51955BL
65	EI-353227	IC M5216L
66	EI-348785	IC M5220L
67	EI-362587J1	IC M5238AL
68	EI-377191	IC NJM5532D-D
69	EI-336995	IC NJM78L05A
70	* EI-397407J	IC NJM7812FA
71	EI-413206J	IC NJM7905FA
72	* EI-410281J	IC NJM7912FA
73	EI-419256J	IC PALCE 22V10H-25PC L3022C
74	EI-412279J1	IC PCM69AP-4
75	EI-410389J	IC PO30RV1
76	* EI-353281	IC SI3052V
77	EI-419235J	IC SM5841HP
78	EI-360038J1	IC TC74HC02AP
79	EI-419228J	IC TC74HC4072AP
80	EI-419227J	IC TE7774
81	EI-377101	IC UPC7805HF
82	EI-365829	IC UPC812C-AK
83	EI-413119J	IC UPD70236GD-16
84	EI-413121J	IC UPD72069GF-3BA
85	EI-405572J	IC UPD78C10AGQ-36
86	EI-379997J	IC YM3623B
87	EI-425214J	IC 18CV8PC-15 M8P1
88	EI-419232J	IC 18CV8PC-15 M8P7
89	EI-419230J	IC 18CV8PC-15 M8P8
90	EI-419161J	IC 18CV8PC-25 L3022A
91	EI-419162J	IC 18CV8PC-25 L3022B
92	EI-419165J	IC 18CV8PC-25 L3022D
93	EI-419184J	IC 18CV8PC-25 L5110A
94	EI-419185J	IC 18CV8PC-25 L6028C
95	EI-419229J	IC 18CV8PC-25 M8P3
96	EI-354123	OSC CE CSA120MTZ 12.000000MHZ
97	EI-396541J	OSC X'TAL HC-49/U 32.000000MHZ
98	EI-419166J	OSC X'TAL TD308C 10MHZ
99	EI-384779J	OSC X'TAL TD308C 33.8688MHZ
100	* EJ-358632J1	SOCKET INLET SOT-16 3P
101	EL-728382J	EL BACK LIGHT
102	EM-382317J	IND LCD EDM-MPJ2COW
103	EQ-348929	RELAY SIG G5A-237P 2TR 12V
104	* ER-200972	R FUSE H S10 ERD2FC 1/4W 33R0G
105	* ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
106	ES-414627J	SW ROTARY EC24B50D0
107	* ES-364478	SW SEESAW SDDTA1 T8.5 01-1
108	ES-412281J	SW SLIDE SSSU12 2-03S
109	ES-410552J	SW TACT SKHVBE T05
110	ET-379341	DETECTOR PC910X
111	ET-419234J	TR FET 2SK669 T05
112	EV-419242J	VR ROTA.RK09K1110 H6.5L25 B103
113	EV-419243J	VR ROTARY RK16312A0L25A103X2
114	EV-419241J	VR SPL RK0971112 SW L15 B502
115	* EZ-403706J	BATTERY LITHIUM CR2032E
116	SE-376331	PAD

2. P.C. BOARD BLOCK

Ref. No.	Part No.	Description
1	BA-L4012A020A	PC CPU BLK MPC3000
2	BA-L4012A030A	PC(#) AD/DA BLK MPC3000
3-A	BA-L4012A040A	PC(#) DRUM PAD BLK MPC3000(J)
3-B	BA-L4012A040B	PC(#) DRUM PAD BLK MPC3000(E)
4	BA-L4012A050A	PC(#) OPERATION BLK MPC3000
5	BA-L4012A090A	PC(#) JACK BLK MPC3000
6	BA-L6028A050A	PC 2M-MEMORY BLK S3000

PC (#) AD/DA BLK CONSISTS OF FOLLOWING P.C. BOARDS.
- AD/DA P.C. BOARD
- 8DACS P.C. BOARD

PC (#) DRUM PAD BLK CONSISTS OF FOLLOWING P.C. BOARDS.
- DRUM PAD P.C. BOARD
- POWER P.C. BOARD
- FILTER P.C. BOARD
- VOLUME P.C. BOARD

PC (#) OPERATION BLK CONSISTS OF FOLLOWING P.C. BOARDS.
- OPERATION (A) P.C. BOARD
- OPERATION (B) P.C. BOARD
- OPERATION (C) P.C. BOARD
- SCSI JACK P.C. BOARD
- CONT VR P.C. BOARD

PC (#) JACK BLK CONSISTS OF FOLLOWING P.C. BOARDS.
- JACK P.C. BOARD
- SCSI/D IN P.C. BOARD

3. CPU P.C. BOARD

Ref. No.	Part No.	Description
D1	ED-344280	D SILICON H GMA-01-FY2 F05
D2	ED-344280	D SILICON H GMA-01-FY2 F05
D3	ED-344280	D SILICON H GMA-01-FY2 F05
D4	ED-344280	D SILICON H GMA-01-FY2 F05
FL1	EH-410420J	FILTER EMI DSS306-93B101MT05
FL2	EH-410420J	FILTER EMI DSS306-93B101MT05
FL3	EH-410420J	FILTER EMI DSS306-93B101MT05
FL4	EH-410420J	FILTER EMI DSS306-93B101MT05
FL5	EH-410420J	FILTER EMI DSS306-93B101MT05
FL6	EH-410420J	FILTER EMI DSS306-93B101MT05
FL7	EH-410420J	FILTER EMI DSS306-93B101MT05
FL8	EH-410420J	FILTER EMI DSS306-93B101MT05
FL9	EH-410420J	FILTER EMI DSS306-93B101MT05
FL10	EH-410420J	FILTER EMI DSS306-93B101MT05
FL11	EH-410420J	FILTER EMI DSS306-93B101MT05
FL12	EH-410420J	FILTER EMI DSS306-93B101MT05
FL13	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL14	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL15	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL16	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL17	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL18	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL19	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL20	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL21	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL22	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL23	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL24	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL25	EH-413150J	FILTER EMI BL03RN2-R62T4 T05

Ref. No.	Part No.	Description
FL26	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL27	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL28	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL29	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL30	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL31	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL32	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL33	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL34	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL35	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL36	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL37	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL38	EH-410420J	FILTER EMI DSS306-93B101MT05
FL39	EH-410420J	FILTER EMI DSS306-93B101MT05
FL40	EH-410420J	FILTER EMI DSS306-93B101MT05
IB1	EH-359185	COMP R RKC1/8B8 103J
IC1	EI-413121J	IC UPD72069GF-3BA
IC2	EI-393698J	IC HD74HC365P
IC3	EI-378276	IC LC7981
IC4	EI-416488J	IC LC3517BSL-15
IC5	EI-388709J	IC HD74HC32P
IC6	EI-413119J	IC UPD70236GD-16
IC7	EI-375185	IC M51953BL
IC8	EI-388712J	IC HD74HC245P
IC9	EI-386289J	IC HD74HC138P
IC10	EI-402126J	IC HD74HC155P
IC11	EI-388711J	IC HD74HC00P
IC12	EI-360038J1	IC TC74HC02AP
IC13	EI-419226J	IC AM27C020-150DC
IC14	EI-419226J	IC AM27C020-150DC
IC15	EI-416497J	IC HM658512LP-85
IC16	EI-416497J	IC HM658512LP-85
IC17	EI-416488J	IC LC3517BSL-15
IC18	EI-389050J	IC HD74AC32P
IC19	EI-386287J	IC HD74AC00P
IC20	EI-419227J	IC TE7774
IC21	EI-419228J	IC TC74HC4072AP
IC22	EI-386303J	IC HD74HC08P
IC23	EI-372103	IC MB89254
IC24	EI-396510J	IC HD74HC173P
IC25	EI-419229J	IC 18CV8PC-25 M8P3
IC27	EI-393698J	IC HD74HC365P
IC28	EI-413120J	IC L7A1045 L6028 DSP-A
IC29	EI-419230J	IC 18CV8PC-15 M8P8
IC30	EI-425713J	IC MB89255B-P-G
IC31	EI-419232J	IC 18CV8PC-15 M8P7
IC32	EI-393702J	IC HD74HC595P
IC33	EI-393702J	IC HD74HC595P
IC34	EI-386287J	IC HD74AC00P
IC35	EI-386300J	IC HD74AC86P
J1	EJ-405316J	DIN J M1756 3P
J2	EJ-405316J	DIN J M1756 3P
J3	EJ-405316J	DIN J M1756 3P
J4	EJ-405316J	DIN J M1756 3P
J5	EJ-405316J	DIN J M1756 3P
J6	EJ-405316J	DIN J M1756 3P
J7	EJ-419240J	SOCKET FCN-235J068-G/0 68P
L1	EO-394178J	COIL FIX 2 SBT-0240 400N
L2	EO-394178J	COIL FIX 2 SBT-0240 400N
L3	EO-362435	COIL FIX 1 LAL03NA R22M
L4	EO-394178J	COIL FIX 2 SBT-0240 400N
L5	EO-394178J	COIL FIX 2 SBT-0240 400N
P7	EJ-425508J	PLUG FAN-20SG-1 20P
P10	EJ-419247J	PLUG 128A-050P2C-S14A 50P
PH1	ET-379341	DETECTOR PC910X
PH2	ET-379341	DETECTOR PC910X
R8	✱ ER-200972	R FUSE H S10 ERD2FC 1/4W 33R0G
TR1	ET-419234J	TR FET 2SK669 T05
W201	EW-425614J	WIRE ASSY L4012-1 W201 34P
W202	EW-425615J	WIRE ASSY L4012-1 W202 34P
X1	EI-396541J	OSC X'TAL HC-49/U 32.000000MHZ
X2	EI-384779J	OSC X'TAL TD308C 33.8688MHZ
1	✱ EZ-403706J	BATTERY LITHIUM CR2032E

4. AD/DA P.C. BOARD

Ref. No.	Part No.	Description
D101	ED-389834J	D SILICON DS135E-FB2 F12 100/1
D102	ED-388358J	D ZENER H HZS5C2
D103	ED-388358J	D ZENER H HZS5C2
D104	ED-388358J	D ZENER H HZS5C2
D105	ED-391103J	D ZENER H HZS12B2
D106	ED-391103J	D ZENER H HZS12B2
F101	* EF-376821	FUSE ICP-N15 50V 0.6A
FL101	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL102	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL103	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL104	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL105	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL106	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL107	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL108	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL109	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL110	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL111	EH-410420J	FILTER EMI DSS306-93B101MT05
FL112	EH-410420J	FILTER EMI DSS306-93B101MT05
FL113	EH-410420J	FILTER EMI DSS306-93B101MT05
IC101	EI-348785	IC M5220L
IC102	EI-348785	IC M5220L
IC103	EI-362587J1	IC M5238AL
IC104	EI-362587J1	IC M5238AL
IC105	EI-365829	IC UPC812C-AK
IC106	EI-422329J	IC AK5328-VP
IC107	EI-412283J	IC M51955BL
IC108	EI-419235J	IC SM5841HP
IC109	EI-412279J1	IC PCM69AP-4
IC110	EI-377191	IC NJM5532D-D
IC111	EI-348785	IC M5220L
IC112	EI-348785	IC M5220L
IC113	EI-348785	IC M5220L
IC114	EI-353227	IC M5216L
IC115	EI-377101	IC UPC7805HF
IC116	EI-413206J	IC NJM7905FA
IC117	EI-397666J	IC LM2940CT-5.0
J101	EJ-363546J	PIN J YKB11-0252B YELLOW 1P *DI*
J102	EJ-353031	PHONE J 3P HLJ0520-010
J103	EJ-353031	PHONE J 3P HLJ0520-010
J104	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J105	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J106	EJ-353031	PHONE J 3P HLJ0520-010
L101	EO-394178J	COIL FIX 2 SBT-0240 400N
L102	EO-394178J	COIL FIX 2 SBT-0240 400N
P101	EJ-425511J	PLUG FAN-34SG-1 34P
P102	EJ-425509J	PLUG FAN-26SG-1 26P
R143	ER-322787	R CB H S10 FS RDS 1/4W 100J
R179	ER-322591	R CB H S10 FS RDS 1/4W 101J
R180	ER-322591	R CB H S10 FS RDS 1/4W 101J
R191	ER-321619	R OMF H S15 FS 1W 101J
R192	ER-321619	R OMF H S15 FS 1W 101J
RL101	EQ-348929	RELAY SIG G5A-237P 2TR 12V
SW101	ES-412281J	SW SLIDE SSSU12 2-03S

5. 8DACS P.C. BOARD

Ref. No.	Part No.	Description
D301	ED-388358J	D ZENER H HZS5C2
D302	ED-388358J	D ZENER H HZS5C2
FL301	EH-410420J	FILTER EMI DSS306-93B101MT05
FL302	EH-410420J	FILTER EMI DSS306-93B101MT05
FL303	EH-410420J	FILTER EMI DSS306-93B101MT05
FL304	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL305	EH-410420J	FILTER EMI DSS306-93B101MT05
FL306	EH-410420J	FILTER EMI DSS306-93B101MT05
FL307	EH-410420J	FILTER EMI DSS306-93B101MT05
FL308	EH-410420J	FILTER EMI DSS306-93B101MT05
IC301	EI-419235J	IC SM5841HP
IC302	EI-419235J	IC SM5841HP
IC303	EI-419235J	IC SM5841HP

Ref. No.	Part No.	Description
IC305	EI-412279J1	IC PCM69AP-4
IC306	EI-412279J1	IC PCM69AP-4
IC307	EI-412279J1	IC PCM69AP-4
IC308	EI-412279J1	IC PCM69AP-4
IC309	EI-377191	IC NJM5532D-D
IC310	EI-377191	IC NJM5532D-D
IC311	EI-377191	IC NJM5532D-D
IC312	EI-377191	IC NJM5532D-D
IC313	EI-348785	IC M5220L
IC314	EI-348785	IC M5220L
IC315	EI-348785	IC M5220L
IC316	EI-348785	IC M5220L
IC317	EI-348785	IC M5220L
IC318	EI-348785	IC M5220L
IC319	EI-348785	IC M5220L
IC320	EI-348785	IC M5220L
IC321	EI-397666J	IC LM2940CT-5.0
IC322	EI-397666J	IC LM2940CT-5.0
J301	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J302	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J303	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J304	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J305	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J306	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J307	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J308	EJ-354105	PHONE J 2P HLJ0520-110 6.3
R429	ER-322591	R CB H S10 FS RDS 1/4W 101J
R430	ER-322591	R CB H S10 FS RDS 1/4W 101J
R431	ER-322591	R CB H S10 FS RDS 1/4W 101J
R432	ER-322591	R CB H S10 FS RDS 1/4W 101J
R433	ER-322591	R CB H S10 FS RDS 1/4W 101J
R434	ER-322591	R CB H S10 FS RDS 1/4W 101J
R435	ER-322591	R CB H S10 FS RDS 1/4W 101J
R436	ER-322591	R CB H S10 FS RDS 1/4W 101J
W301	EW-425616J	WIRE ASSY L4012-1 W301 26P

6. DRUM PAD P.C. BOARD

Ref. No.	Part No.	Description
D701	ED-344280	D SILICON H GMA-01-FY2 F05
D702	ED-344280	D SILICON H GMA-01-FY2 F05
D703	ED-344280	D SILICON H GMA-01-FY2 F05
D704	ED-344280	D SILICON H GMA-01-FY2 F05
D705	ED-344280	D SILICON H GMA-01-FY2 F05
D706	ED-344280	D SILICON H GMA-01-FY2 F05
D707	ED-344280	D SILICON H GMA-01-FY2 F05
D708	ED-344280	D SILICON H GMA-01-FY2 F05
D709	ED-344280	D SILICON H GMA-01-FY2 F05
D710	ED-344280	D SILICON H GMA-01-FY2 F05
D711	ED-344280	D SILICON H GMA-01-FY2 F05
D712	ED-344280	D SILICON H GMA-01-FY2 F05
D713	ED-344280	D SILICON H GMA-01-FY2 F05
D714	ED-344280	D SILICON H GMA-01-FY2 F05
D715	ED-344280	D SILICON H GMA-01-FY2 F05
D716	ED-344280	D SILICON H GMA-01-FY2 F05
D717	ED-344280	D SILICON H GMA-01-FY2 F05
D718	ED-344280	D SILICON H GMA-01-FY2 F05
D719	ED-344280	D SILICON H GMA-01-FY2 F05
D720	ED-344280	D SILICON H GMA-01-FY2 F05
D721	ED-344280	D SILICON H GMA-01-FY2 F05
D722	ED-344280	D SILICON H GMA-01-FY2 F05
D723	ED-344280	D SILICON H GMA-01-FY2 F05
D724	ED-344280	D SILICON H GMA-01-FY2 F05
IC701	EI-387934J	IC HD74HC04P
IC702	EI-379605	IC LA6339
IC703	EI-362587J1	IC M5238AL
IC704	EI-362587J1	IC M5238AL
P701	EJ-425508J	PLUG FAN-20SG-1 20P
P702	EJ-379603	PLUG 20FR-ST

7. POWER P.C. BOARD

Ref. No.	Part No.	Description
C802	EC-379611	C EC V S10 SME 123M 10.0DC
C803	EC-324662	C EC V CUT AS1 222M 25.0DC
C804	EC-324662	C EC V CUT AS1 222M 25.0DC
C807	EC-379535	C TT V F05 DN 106M 16.0DC
D801	✱ ED-383752J	D SILICON DBF40C 200V/4.0A
D802	✱ ED-330319	D SILICON DBA10B 100/1.0A
D803	✱ ED-389834J	D SILICON DS135E-FB2 F12 100/1
D804	✱ ED-388358J	D ZENER H HZS5C2
IC801	✱ EI-353281	IC SI3052V
IC802	✱ EI-397407J	IC NJM7812FA
IC803	✱ EI-410281J	IC NJM7912FA
F2-A	✱ EF-306952	FUSE TSC A 250V 4.00A [J]
F2-B	✱ EF-306957	FUSE TSC 125V 4.00A [C,A]
F2-C	✱ EF-691007	FUSE SET T 250V 3.15A [E,V,S]
F2-D	✱ EF-359225	FUSE BET T 250V 3.15A [B]
F3-A	✱ EF-309388	FUSE TSC A 250V 800MA [J]
F3-B	✱ EF-309391	FUSE TSC 125V 800MA [C,A]
F3-C	✱ EF-601942	FUSE SET T 250V 630MA [E,V,S]
F3-D	✱ EF-358974	FUSE BET T 250V 630MA [B]
F4-A	✱ EF-309388	FUSE TSC A 250V 800MA [J]
F4-B	✱ EF-309391	FUSE TSC 125V 800MA [C,A]
F4-C	✱ EF-601942	FUSE SET T 250V 630MA [E,V,S]
F4-D	✱ EF-358974	FUSE BET T 250V 630MA [B]

8. FILTER P.C. BOARD

Ref. No.	Part No.	Description
C851	✱ EC-425606J	C MMY V CUT MMRC 683M 275AC
C852	✱ EC-410346J	C CE V DE1110E102M 400AC
C853	✱ EC-410346J	C CE V DE1110E102M 400AC
C854	✱ EC-410346J	C CE V DE1110E102M 400AC
C855	✱ EC-410346J	C CE V DE1110E102M 400AC
C856	✱ EC-338411	C CE V DE7150 FZ 103P 400AC
FL851	✱ EO-389172J	COIL LF LF-4N 502
R851	✱ ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
T851	BT-390145J	TRANS PULSE NI05-05-5
F1-A	✱ EF-309387	FUSE TSC A 250V 1.00A [J]
F1-B	✱ EF-310229	FUSE TSC 125V 1.00A [C,A]
F1-C	✱ EF-623103	FUSE SET T 250V 1.00A [E,V,S]
F1-D	✱ EF-355226	FUSE BET T 250V 1.00A [B]

9. VOLUME P.C. BOARD

Ref. No.	Part No.	Description
VR701	EV-419243J	VR ROTARY RK16312A0L25A103X2
VR702	EV-419243J	VR ROTARY RK16312A0L25A103X2

10. OPERATION (A) P.C. BOARD

Ref. No.	Part No.	Description
D601	ED-417916J	D LED SLN-210VT RED T26
D602	ED-417916J	D LED SLN-210VT RED T26
D603	ED-417916J	D LED SLN-210VT RED T26
D604	ED-417916J	D LED SLN-210VT RED T26
D605	ED-417916J	D LED SLN-210VT RED T26
D606	ED-417916J	D LED SLN-210VT RED T26
D607	ED-417916J	D LED SLN-210VT RED T26
D608	ED-417916J	D LED SLN-210VT RED T26
D609	ED-417916J	D LED SLN-210VT RED T26
D610	ED-389834J	D SILICON DS135E-FB2 F12 100/1
D611	ED-344280	D SILICON H GMA-01-FY2 F05
D612	ED-344280	D SILICON H GMA-01-FY2 F05
D613	ED-344280	D SILICON H GMA-01-FY2 F05
D614	ED-344280	D SILICON H GMA-01-FY2 F05
D615	ED-344280	D SILICON H GMA-01-FY2 F05
D616	ED-344280	D SILICON H GMA-01-FY2 F05
D617	ED-344280	D SILICON H GMA-01-FY2 F05
D618	ED-344280	D SILICON H GMA-01-FY2 F05
D619	ED-388358J	D ZENER H HZS5C2
IB601	EH-349374	COMP R RKC1/8B8 472J
IC601	EI-405572J	IC UPD78C10AGQ-36
IC602	EI-397343J	IC AM27C256-150DC
IC603	EI-388567J	IC HD74HC573P
IC604	EI-386289J	IC HD74HC138P
IC605	EI-393697J	IC HD74HC259P
IC606	EI-393697J	IC HD74HC259P
IC607	EI-336995	IC NJM78L05A
SW601	ES-410552J	SW TACT SKHVBE T05
SW602	ES-410552J	SW TACT SKHVBE T05
SW603	ES-410552J	SW TACT SKHVBE T05
SW604	ES-410552J	SW TACT SKHVBE T05
SW605	ES-410552J	SW TACT SKHVBE T05
SW606	ES-410552J	SW TACT SKHVBE T05
SW607	ES-410552J	SW TACT SKHVBE T05
SW608	ES-410552J	SW TACT SKHVBE T05
SW609	ES-410552J	SW TACT SKHVBE T05
SW610	ES-410552J	SW TACT SKHVBE T05
SW611	ES-410552J	SW TACT SKHVBE T05
SW612	ES-410552J	SW TACT SKHVBE T05
SW613	ES-410552J	SW TACT SKHVBE T05
SW614	ES-410552J	SW TACT SKHVBE T05
SW615	ES-410552J	SW TACT SKHVBE T05
SW616	ES-410552J	SW TACT SKHVBE T05
SW617	ES-410552J	SW TACT SKHVBE T05
SW618	ES-410552J	SW TACT SKHVBE T05
SW619	ES-410552J	SW TACT SKHVBE T05
SW620	ES-410552J	SW TACT SKHVBE T05
SW621	ES-410552J	SW TACT SKHVBE T05
SW622	ES-410552J	SW TACT SKHVBE T05
SW623	ES-410552J	SW TACT SKHVBE T05
SW624	ES-410552J	SW TACT SKHVBE T05
SW625	ES-410552J	SW TACT SKHVBE T05
SW626	ES-410552J	SW TACT SKHVBE T05
SW627	ES-410552J	SW TACT SKHVBE T05
SW628	ES-410552J	SW TACT SKHVBE T05
SW629	ES-410552J	SW TACT SKHVBE T05
SW630	ES-410552J	SW TACT SKHVBE T05
SW631	ES-410552J	SW TACT SKHVBE T05
SW632	ES-410552J	SW TACT SKHVBE T05
SW633	ES-410552J	SW TACT SKHVBE T05
SW634	ES-410552J	SW TACT SKHVBE T05
SW635	ES-410552J	SW TACT SKHVBE T05
SW636	ES-410552J	SW TACT SKHVBE T05
SW637	ES-410552J	SW TACT SKHVBE T05
SW638	ES-410552J	SW TACT SKHVBE T05
SW639	ES-410552J	SW TACT SKHVBE T05
SW640	ES-410552J	SW TACT SKHVBE T05
SW641	ES-410552J	SW TACT SKHVBE T05
SW642	ES-410552J	SW TACT SKHVBE T05
SW643	ES-410552J	SW TACT SKHVBE T05
SW644	ES-410552J	SW TACT SKHVBE T05
SW645	ES-410552J	SW TACT SKHVBE T05
SW646	ES-410552J	SW TACT SKHVBE T05
SW647	ES-410552J	SW TACT SKHVBE T05
SW648	ES-410552J	SW TACT SKHVBE T05

Ref. No.	Part No.	Description
W601	EW-425618J	WIRE ASSY L4012-1 W601 20P
W602	EW-425619J	WIRE ASSY L4012-1 W602 20P
X601	EI-354123	OSC CE CSA120MTZ 12.000000MHZ

11. OPERATION (B) P.C. BOARD

Ref. No.	Part No.	Description
D661	ED-417916J	D LED SLN-210VT RED T26
D662	ED-417916J	D LED SLN-210VT RED T26
D663	ED-417916J	D LED SLN-210VT RED T26
D664	ED-417916J	D LED SLN-210VT RED T26
D665	ED-417916J	D LED SLN-210VT RED T26
D666	ED-417916J	D LED SLN-210VT RED T26
D667	ED-417916J	D LED SLN-210VT RED T26
SW661	ES-410552J	SW TACT SKHVBE T05
SW662	ES-410552J	SW TACT SKHVBE T05
SW663	ES-410552J	SW TACT SKHVBE T05
SW664	ES-410552J	SW TACT SKHVBE T05
SW665	ES-410552J	SW TACT SKHVBE T05
VR661	EV-365876	VR SLIDE VJ4513-2PVNB5 1 03

12. OPERATION (C) P.C. BOARD

Ref. No.	Part No.	Description
SW651	ES-410552J	SW TACT SKHVBE T05
SW652	ES-410552J	SW TACT SKHVBE T05
SW653	ES-410552J	SW TACT SKHVBE T05
SW654	ES-410552J	SW TACT SKHVBE T05

13. SCSI JACK P.C. BOARD

Ref. No.	Part No.	Description
FL551	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL552	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL553	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL554	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL555	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL556	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL557	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL558	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL559	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL560	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL561	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL562	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL563	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL564	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL565	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL566	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL567	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
FL568	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
J551	EJ-428182J	SOCKET DBLC-J25SAF-2L9 25P
W503	EW-425617J	WIRE ASSY L4012-1 W503 26P

14. CONT VR P.C. BOARD

Ref. No.	Part No.	Description
VR703	EV-419241J	VR SPL RK0971112 SW L15 B502

15. JACK P.C. BOARD

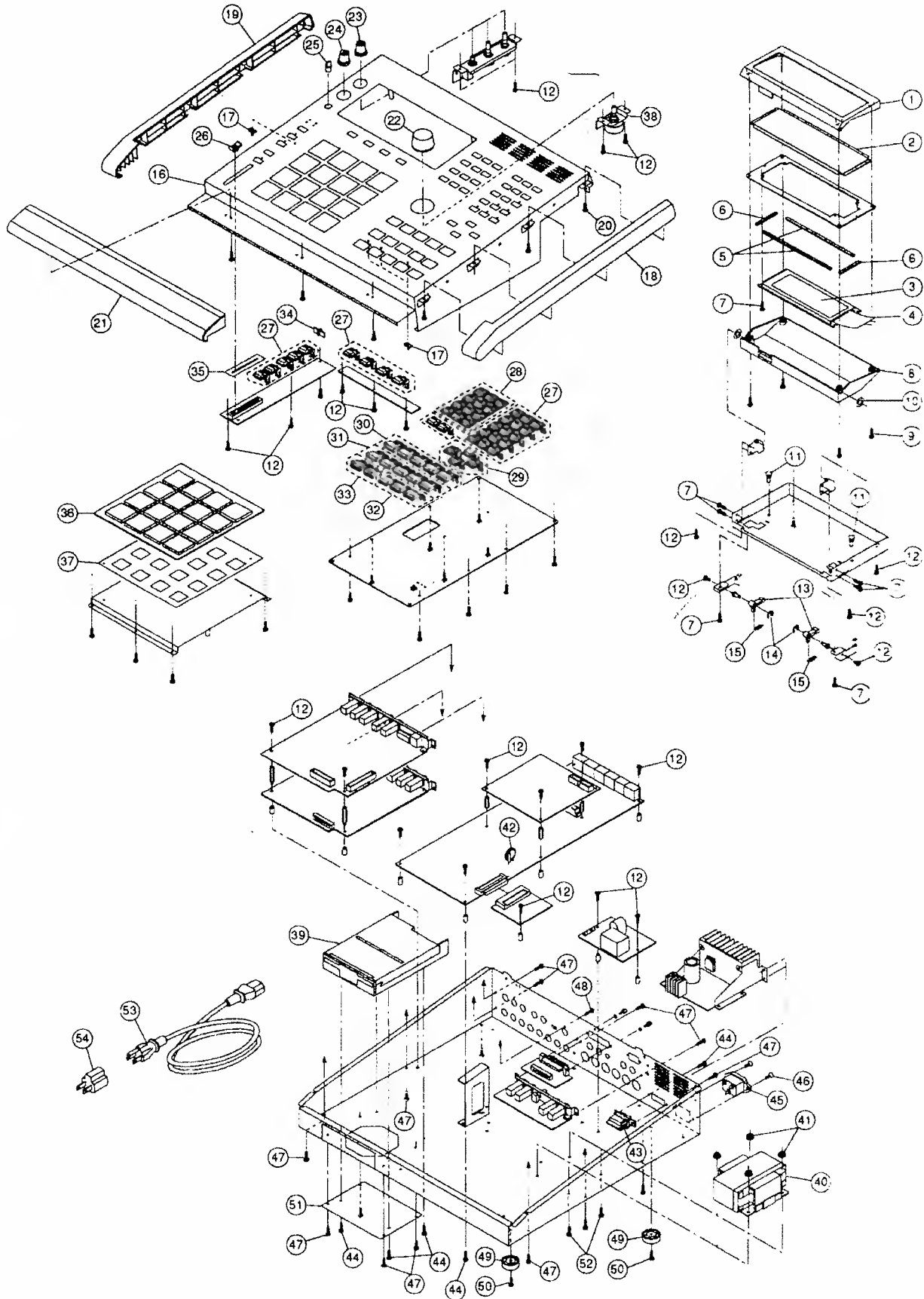| Ref. No.	Part No.	Description
D501	ED-344280	D SILICON H GMA-01-FY2 F05
D502	ED-344280	D SILICON H GMA-01-FY2 F05
FL501	EH-410420J	FILTER EMI DSS306-93B101MT05
FL502	EH-410420J	FILTER EMI DSS306-93B101MT05
FL503	EH-410420J	FILTER EMI DSS306-93B101MT05
FL504	EH-410420J	FILTER EMI DSS306-93B101MT05
FL505	EH-410420J	FILTER EMI DSS306-93B101MT05
IC501	EI-362587J1	IC M5238AL
IC502	EI-362587J1	IC M5238AL
IC503	EI-321606	IC LM393N
J501	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J502	EJ-354105	PHONE J 2P HLJ0520-110 6.3
J503	EJ-353031	PHONE J 3P HLJ0520-010
J504	EJ-354105	PHONE J 2P HLJ0520-110 6.3
VR501	EV-419242J	VR ROTA.RK09K1110 H6.5L25 B103

16. SCSI/D IN P.C. BOARD

Ref. No.	Part No.	Description
D901	ED-389834J	D SILICON DS135E-FB2 F12 100/1
F901	* EF-373142	FUSE ICP-N25 50V 1.0A
FL901	EH-413150J	FILTER EMI BL03RN2-R62T4 T05
IB901	EH-408860J	COMP R RKC1/8B9 111J
IB902	EH-408860J	COMP R RKC1/8B9 111J
IC901	EI-388602J	IC MB89352A-P-G
IC902	EI-410389J	IC PQ30RV1
IC903	EI-425713J	IC MB89255B-P-G
IC904	EI-387936J	IC HD74HC175P
IC905	EI-379997J	IC YM3623B
IC906	EI-425214J	IC 18CV8PC-15 M8P1
IC907	EI-393702J	IC HD74HC595P
IC908	EI-393702J	IC HD74HC595P
IC909	EI-387934J	IC HD74HC04P
P901	EJ-419246J	SOCKET 128A-050S2A-S14A 50P
P902	EJ-425509J	PLUG FAN-26SG-1 26P

17. WAVE MEMORY P.C. BOARD (2M-MEMORY)

Ref. No.	Part No.	Description
IC1	EI-412247J	IC MB814400-80L PSZ-G
IC2	EI-412247J	IC MB814400-80L PSZ-G
IC3	EI-412247J	IC MB814400-80L PSZ-G
IC4	EI-412247J	IC MB814400-80L PSZ-G
IC5	EI-419185J	IC 18CV8PC-25 L6028C
P301	EJ-413161J	PLUG FCN-235P68-G/0 68P

18. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
1	SP-419812J	PANEL LCD(A)3 MPC3000
2	SE-419757J	WINDOW LCD
3	EM-382317J	IND LCD EDM-MPJ2COW
4	EL-728382J	EL BACK LIGHT
5	SZ-401475J1	SEAL DUST A
6	SZ-401476J1	SEAL DUST B
7	ZS-320906	ST BR30X06STL CMT
8	SP-419959J	PANEL LCD(B)2
9	ZS-417407	PAN30X10STL BNI
10	ZW-259738	PW41X070X025PSL
11	ZW-318343	RV NYL40X050
12	ZS-379405	BID30X06STL CMT
13	ML-380175J	ARM LOCK
14	ZW-270101	RING E 300SUP CMT
15	ZG-380174J	SP PULL ARM LOCK
16	SP-419767J	PANEL TOP
17	SE-419756J	LENS LED
18	SP-419765J	PANEL SIDE(R)
19	SP-419766J	PANEL SIDE(L)
20	ZS-332009	PT BR30X06STL CMT
21	SZ-419759J	CUSHION PAD PART
22	SK-411156J	KNOB CONTROL
23	SK-411144J	KNOB VOL PART(1)
24	SK-411147J	KNOB VOL PART(2)
25	SK-413636J	KNOB VOL GR
26	SK-364219B	KNOB SLIDE(B)
27	SB-419762J	BUTTON PUSH(A)
28	SB-419763J	BUTTON PUSH(B)
29	SB-419764J	BUTTON PUSH(C)
30	SK-419827J	KNOB OPERATE(E)
31	SK-378253A	KNOB OPERATE(A)
32	SK-378253B	KNOB OPERATE(B)
33	SK-378253D	KNOB OPERATE(D)
34	SE-419749J	MASK LED
35	SE-423110J	MASK SLIDE
36	SE-376331	PAD
37	BA-379695J1	PC PAD SENSOR
38	ES-414627J	SW ROTARY EC24B50D0
39	BB-428036J	FLOPPY DISK FD-235HF-3300
40-A	✽ BT-378271	TRANS POW L4003 J [J]
40-B	✽ BT-378272	TRANS POW L4003 C,A [C,A]
40-C	✽ BT-419200J	TRANS POW L4012 E,V,B,S [E,V,B,S]
41	ZW-609434	N FRANGE 30STL CMT
42	✽ EZ-403706J	BATTERY LITHIUM CR2032E
43	✽ ES-364478	SW SEESAW SDDTA1 T8.5 01-1
44	ZS-355511	BID30X06STL BNI
45	✽ EJ-358632J1	SOCKET INLET SOT-16 3P
46	ZS-336612	ST CTS30X08STL BNI
47	ZS-345272	ST BR30X06STL BNI
48	ZS-350934	PT BR30X08STL BNI
49	ZS-379405	BID30X06STL CMT
50	SA-332850	FOOT ROUND SHAPED
51	ZS-360715	ST PAN30X08STL CMT C080
52	SE-419761J	COVER FDD
53	ZS-396044	BID30X08STL BNI
54-A	✽ EW-380905J	AC CORD 250S KP300 KS16A H B J [J]
54-B	✽ EW-368420J1	AC CORD200SKP30KS16 B AC [C,A]
54-C	✽ EW-403993J	AC CORD200SKP4819DKS31A B E [E,V]
54-D	✽ EW-419170J	AC CORD200S KP610 KS31A B [B]
54-E	✽ EW-368418J1	AC CORD200SKP551KS31 B S [S]
55	✽ EJ-405424J	PLUG ADAPTOR KPR-25 [J]

19. EXM3008 (OPTIONAL P.C. BOARD)

Ref. No.	Part No.	Description
IC1	EI-414848J	IC MB8116400-70PZ-G
IC2	EI-414848J	IC MB8116400-70PZ-G
IC3	EI-414848J	IC MB8116400-70PZ-G
IC4	EI-414848J	IC MB8116400-70PZ-G
IC5	EI-419184J	IC 18CV8PC-25 L5110A
P101	EJ-413161J	PLUG FCN-235P68-G/0 68P

20. IB-CRT (A) (OPTIONAL P.C. BOARD)

Ref. No.	Part No.	Description
IC1	EI-413124J	IC HD74HC590P
IC2	EI-413124J	IC HD74HC590P
IC3	EI-405201J	IC LC3517BL-15
IC4	EI-393702J	IC HD74HC595P
IC5	EI-419160J	IC HD74HC166P
IC6	EI-419161J	IC 18CV8PC-25 L3022A
IC7	EI-419162J	IC 18CV8PC-25 L3022B
IC8	EI-419256J	IC PALCE 22V10H-25PC L3022C
IC9	EI-419165J	IC 18CV8PC-25 L3022D
X1	EI-419166J	OSC X'TAL TD308C 10MHZ

21. IB-CRT (B) (OPTIONAL P.C. BOARD)

Ref. No.	Part No.	Description
W1	EJ-419167J	SOCKET KHE Y-15S-1A3A 15P

22. I-0055 (OPTIONAL IC)

Ref. No.	Part No.	Description
1	EI-378277	IC I-0055

NOTE :
Parts will not be supplied if they are not listed in the parts list,
even if they appear on the assembling illustrations with
reference No.

Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.
BAL4012A020A	2-1	ED389834J	4-D101	EH410420J	15-FL502	EI348785	5-IC317
BAL4012A030A	2-2	ED389834J	7-D803	EH410420J	15-FL503	EI348785	5-IC318
BAL4012A040A	2-3-A	ED389834J	10-D610	EH410420J	15-FL504	EI348785	5-IC319
BAL4012A040B	2-3-B	ED389834J	16-D901	EH410420J	15-FL505	EI348785	5-IC320
BAL4012A050A	2-4	ED391103J	4-D105	EH413150J	3-FL13	EI353227	4-IC114
BAL4012A090A	2-5	ED391103J	4-D106	EH413150J	3-FL14	EI353281	7-IC801
BAL6028A050A	2-6	ED417916J	10-D601	EH413150J	3-FL15	EI354123	10-X601
BA379695J1	18-37	ED417916J	10-D602	EH413150J	3-FL16	EI360038J1	3-IC12
BB428036J	18-39	ED417916J	10-D603	EH413150J	3-FL17	EI362587J1	4-IC103
BT378271	18-40-A	ED417916J	10-D604	EH413150J	3-FL18	EI362587J1	4-IC104
BT378272	18-40-B	ED417916J	10-D605	EH413150J	3-FL19	EI362587J1	6-IC703
BT390145J	8-T851	ED417916J	10-D606	EH413150J	3-FL20	EI362587J1	6-IC704
BT419200J	18-40-C	ED417916J	10-D607	EH413150J	3-FL21	EI362587J1	15-IC501
EC324662	7-C803	ED417916J	10-D608	EH413150J	3-FL22	EI362587J1	15-IC502
EC324662	7-C804	ED417916J	10-D609	EH413150J	3-FL23	EI365829	4-IC105
EC338411	8-C856	ED417916J	11-D661	EH413150J	3-FL24	EI372103	3-IC23
EC379535	7-C807	ED417916J	11-D662	EH413150J	3-FL25	EI375185	3-IC7
EC379611	7-C802	ED417916J	11-D663	EH413150J	3-FL26	EI377101	4-IC115
EC410346J	8-C852	ED417916J	11-D664	EH413150J	3-FL27	EI377191	4-IC110
EC410346J	8-C853	ED417916J	11-D665	EH413150J	3-FL28	EI377191	5-IC309
EC410346J	8-C854	ED417916J	11-D666	EH413150J	3-FL29	EI377191	5-IC310
EC410346J	8-C855	ED417916J	11-D667	EH413150J	3-FL30	EI377191	5-IC311
EC425606J	8-C851	EF306952	7-F2-A	EH413150J	3-FL31	EI377191	5-IC312
ED330319	7-D802	EF306957	7-F2-B	EH413150J	3-FL32	EI378276	3-IC3
ED344280	3-D1	EF309387	8-F1-A	EH413150J	3-FL33	EI378277	22-1
ED344280	3-D2	EF309388	7-F3-A	EH413150J	3-FL34	EI379605	6-IC702
ED344280	3-D3	EF309388	7-F4-A	EH413150J	3-FL35	EI379997J	16-IC905
ED344280	3-D4	EF309391	7-F3-B	EH413150J	3-FL36	EI384779J	3-X2
ED344280	6-D701	EF309391	7-F4-B	EH413150J	3-FL37	EI386287J	3-IC19
ED344280	6-D702	EF310229	8-F1-B	EH413150J	4-FL101	EI386287J	3-IC34
ED344280	6-D703	EF355226	8-F1-D	EH413150J	4-FL102	EI386289J	3-IC9
ED344280	6-D704	EF358974	7-F3-D	EH413150J	4-FL103	EI386289J	10-IC604
ED344280	6-D705	EF358974	7-F4-D	EH413150J	4-FL104	EI386300J	3-IC35
ED344280	6-D706	EF359225	7-F2-D	EH413150J	4-FL105	EI386303J	3-IC22
ED344280	6-D707	EF373142	16-F901	EH413150J	4-FL106	EI387934J	6-IC701
ED344280	6-D708	EF376821	4-F101	EH413150J	4-FL107	EI387934J	16-IC909
ED344280	6-D709	EF601942	7-F3-C	EH413150J	4-FL108	EI387936J	16-IC904
ED344280	6-D710	EF601942	7-F4-C	EH413150J	4-FL109	EI388567J	10-IC603
ED344280	6-D711	EF623103	8-F1-C	EH413150J	4-FL110	EI388602J	16-IC901
ED344280	6-D712	EF691007	7-F2-C	EH413150J	5-FL304	EI388709J	3-IC5
ED344280	6-D713	EH349374	10-IB601	EH413150J	13-FL551	EI388711J	3-IC11
ED344280	6-D714	EH359185	3-IB1	EH413150J	13-FL552	EI388712J	3-IC8
ED344280	6-D715	EH408860J	16-IB901	EH413150J	13-FL553	EI389050J	3-IC18
ED344280	6-D716	EH408860J	16-IB902	EH413150J	13-FL554	EI393697J	10-IC605
ED344280	6-D717	EH410420J	3-FL1	EH413150J	13-FL555	EI393697J	10-IC606
ED344280	6-D718	EH410420J	3-FL2	EH413150J	13-FL556	EI393698J	3-IC2
ED344280	6-D719	EH410420J	3-FL3	EH413150J	13-FL557	EI393698J	3-IC27
ED344280	6-D720	EH410420J	3-FL4	EH413150J	13-FL558	EI393702J	3-IC32
ED344280	6-D721	EH410420J	3-FL5	EH413150J	13-FL559	EI393702J	3-IC33
ED344280	6-D722	EH410420J	3-FL6	EH413150J	13-FL560	EI393702J	16-IC907
ED344280	6-D723	EH410420J	3-FL7	EH413150J	13-FL561	EI393702J	16-IC908
ED344280	6-D724	EH410420J	3-FL8	EH413150J	13-FL562	EI393702J	20-IC4
ED344280	10-D611	EH410420J	3-FL9	EH413150J	13-FL563	EI396510J	3-IC24
ED344280	10-D612	EH410420J	3-FL10	EH413150J	13-FL564	EI396541J	3-X1
ED344280	10-D613	EH410420J	3-FL11	EH413150J	13-FL565	EI397343J	10-IC602
ED344280	10-D614	EH410420J	3-FL12	EH413150J	13-FL566	EI397407J	7-IC802
ED344280	10-D615	EH410420J	3-FL38	EH413150J	13-FL567	EI397666J	4-IC117
ED344280	10-D616	EH410420J	3-FL39	EH413150J	13-FL568	EI397666J	5-IC321
ED344280	10-D617	EH410420J	3-FL40	EH413150J	16-FL901	EI397666J	5-IC322
ED344280	10-D618	EH410420J	4-FL111	EI321606	15-IC503	EI402126J	3-IC10
ED344280	15-D501	EH410420J	4-FL112	EI336995	10-IC607	EI405201J	20-IC3
ED344280	15-D502	EH410420J	4-FL113	EI348785	4-IC101	EI405572J	10-IC601
ED383752J	7-D801	EH410420J	5-FL301	EI348785	4-IC111	EI410281J	7-IC803
ED388358J	4-D102	EH410420J	5-FL302	EI348785	4-IC112	EI410389J	16-IC902
ED388358J	4-D103	EH410420J	5-FL303	EI348785	4-IC113	EI412247J	17-IC1
ED388358J	4-D104	EH410420J	5-FL305	EI348785	5-IC313	EI412247J	17-IC2
ED388358J	5-D301	EH410420J	5-FL306	EI348785	5-IC314	EI412247J	17-IC3
ED388358J	5-D302	EH410420J	5-FL307	EI348785	5-IC315	EI412247J	17-IC4
ED388358J	7-D804	EH410420J	5-FL308	EI348785	5-IC316	EI412279J1	4-IC109
ED388358J	10-D619	EH410420J	15-FL501	EI348785	5-IC316	EI412279J1	5-IC305

Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.
EI412279J1	5-IC306	EJ413161J	19-P101	ES410552J	10-SW633	SP419767J1	18-16
EI412279J1	5-IC307	EJ419167J	21-W1	ES410552J	10-SW634	SP419812J	18-1
EI412279J1	5-IC308	EJ419240J	3-J7	ES410552J	10-SW635	SP419959J	18-8
EI412283J	4-IC107	EJ419246J	16-P901	ES410552J	10-SW636	SZ401475J1	18-5
EI413119J	3-IC6	EJ419247J	3-P10	ES410552J	10-SW637	SZ401476J1	18-6
EI413120J	3-IC28	EJ425508J	3-P7	ES410552J	10-SW638	SZ419759J	18-21
EI413121J	3-IC1	EJ425508J	6-P701	ES410552J	10-SW639	ZG380174J	18-15
EI413124J	20-IC1	EJ425509J	4-P102	ES410552J	10-SW640	ZS320906	18-7
EI413124J	20-IC2	EJ425509J	16-P902	ES410552J	10-SW641	ZS332009	18-20
EI413206J	4-IC116	EJ425511J	4-P101	ES410552J	10-SW642	ZS336612	18-46
EI414848J	19-IC1	EJ427799J	13-J551	ES410552J	10-SW643	ZS345272	18-47
EI414848J	19-IC2	EL728382J	18-4	ES410552J	10-SW644	ZS350934	18-48
EI414848J	19-IC3	EM382317J	18-3	ES410552J	10-SW645	ZS355511	18-44
EI414848J	19-IC4	EO362435	3-L3	ES410552J	10-SW646	ZS360715	18-51
EI416488J	3-IC4	EO389172J	8-FL851	ES410552J	10-SW647	ZS379405	18-12
EI416488J	3-IC17	EO394178J	3-L1	ES410552J	10-SW648	ZS379405	18-49
EI416497J	3-IC15	EO394178J	3-L2	ES410552J	11-SW661	ZS396044	18-53
EI416497J	3-IC16	EO394178J	3-L4	ES410552J	11-SW662	ZS417407	18-9
EI419160J	20-IC5	EO394178J	3-L5	ES410552J	11-SW663	ZW259738	18-10
EI419161J	20-IC6	EO394178J	4-L101	ES410552J	11-SW664	ZW270101	18-14
EI419162J	20-IC7	EO394178J	4-L102	ES410552J	11-SW665	ZW318343	18-11
EI419165J	20-IC9	EQ348929	4-RL101	ES410552J	12-SW651	ZW609434	18-41
EI419166J	20-X1	ER200972	3-R8	ES410552J	12-SW652		
EI419184J	19-IC5	ER318647	8-R851	ES410552J	12-SW653		
EI419185J	17-IC5	ER321619	4-R191	ES410552J	12-SW654		
EI419226J	3-IC13	ER321619	4-R192	ES412281J	4-SW101		
EI419226J	3-IC14	ER322591	4-R179	ES414627J	18-38		
EI419227J	3-IC20	ER322591	4-R180	ET379341	3-PH1		
EI419228J	3-IC21	ER322591	5-R429	ET379341	3-PH2		
EI419229J	3-IC25	ER322591	5-R430	ET419234J	3-TR1		
EI419230J	3-IC29	ER322591	5-R431	EV365876	11-VR661		
EI419232J	3-IC31	ER322591	5-R432	EV419241J	14-VR703		
EI419235J	4-IC108	ER322591	5-R433	EV419242J	15-VR501		
EI419235J	5-IC301	ER322591	5-R434	EV419243J	9-VR701		
EI419235J	5-IC302	ER322591	5-R435	EV419243J	9-VR702		
EI419235J	5-IC303	ER322591	5-R436	EW368418J1	18-54-E		
EI419235J	5-IC304	ER322787	4-R143	EW368420J1	18-54-B		
EI419256J	20-IC8	ES364478	18-43	EW380905J	18-54-A		
EI422329J	4-IC106	ES410552J	10-SW601	EW403993J	18-54-C		
EI425214J	16-IC906	ES410552J	10-SW602	EW419170J	18-54-D		
EI425713J	3-IC30	ES410552J	10-SW603	EW425614J	3-W201		
EI425713J	16-IC903	ES410552J	10-SW604	EW425615J	3-W202		
EJ353031	4-J102	ES410552J	10-SW605	EW425616J	5-W301		
EJ353031	4-J103	ES410552J	10-SW606	EW425617J	13-W503		
EJ353031	4-J106	ES410552J	10-SW607	EW425618J	10-W601		
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EJ354105	5-J307	ES410552J	10-SW617	SE419749J	18-34		
EJ354105	5-J308	ES410552J	10-SW618	SE419756J	18-17		
EJ354105	15-J501	ES410552J	10-SW619	SE419757J	18-2		
EJ354105	15-J502	ES410552J	10-SW620	SE419761J	18-52		
EJ354105	15-J504	ES410552J	10-SW621	SE423110J	18-35		
EJ358632J1	18-45	ES410552J	10-SW622	SK364219B	18-26		
EJ379603	6-P702	ES410552J	10-SW623	SK378253A	18-31		
EJ383548J	4-J101	ES410552J	10-SW624	SK378253B	18-32		
EJ405316J	3-J1	ES410552J	10-SW625	SK378253D	18-33		
EJ405316J	3-J2	ES410552J	10-SW626	SK411144J	18-23		
EJ405316J	3-J3	ES410552J	10-SW627	SK411147J	18-24		
EJ405316J	3-J4	ES410552J	10-SW628	SK411156J	18-22		
EJ405316J	3-J5	ES410552J	10-SW629	SK413636J	18-25		
EJ405316J	3-J6	ES410552J	10-SW630	SK419827J	18-30		
EJ405424J	18-55	ES410552J	10-SW631	SP419765J	18-18		
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AKAI

MODEL MPC3000

SCHEMATIC DIAGRAMS
AND PC BOARDS

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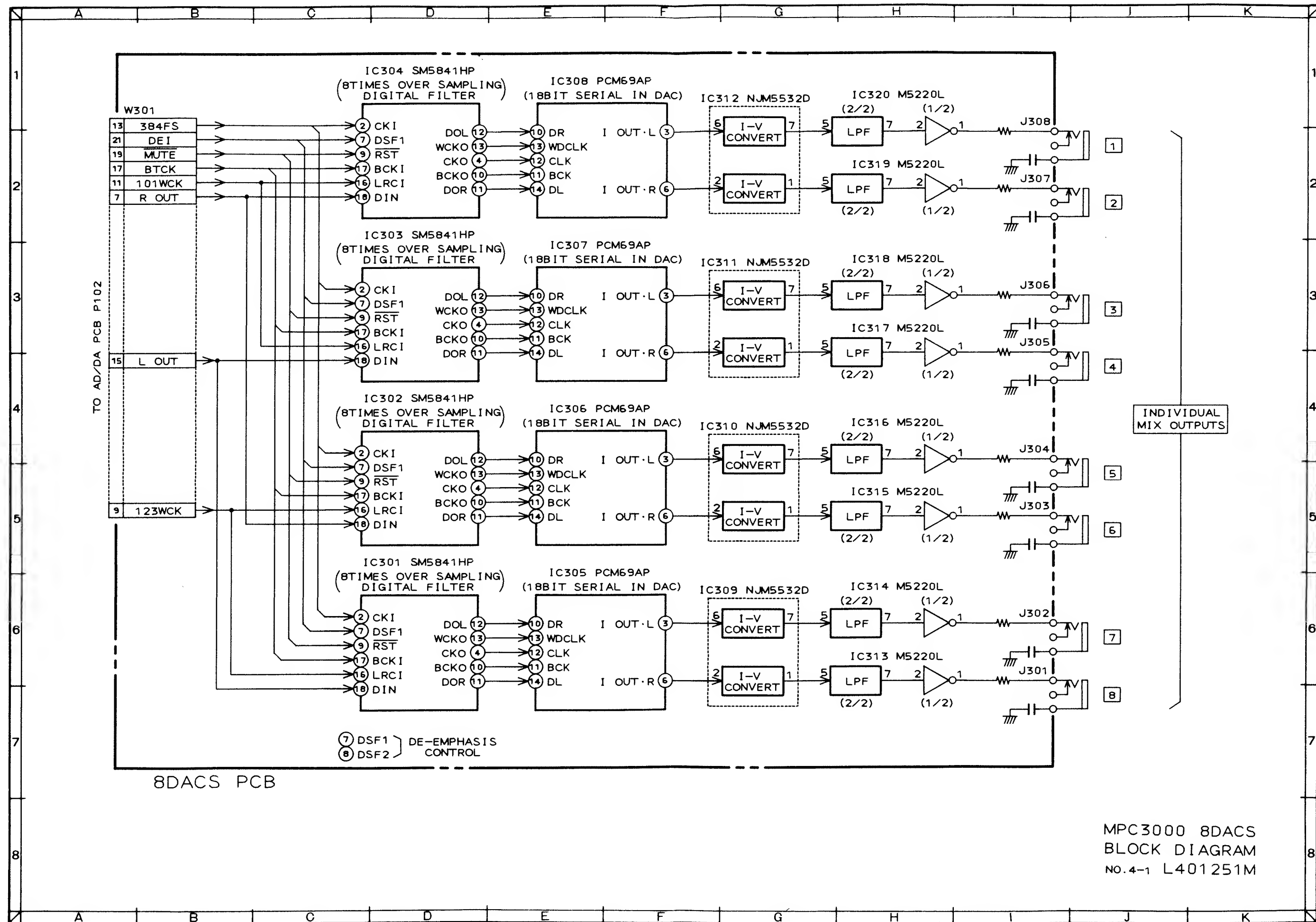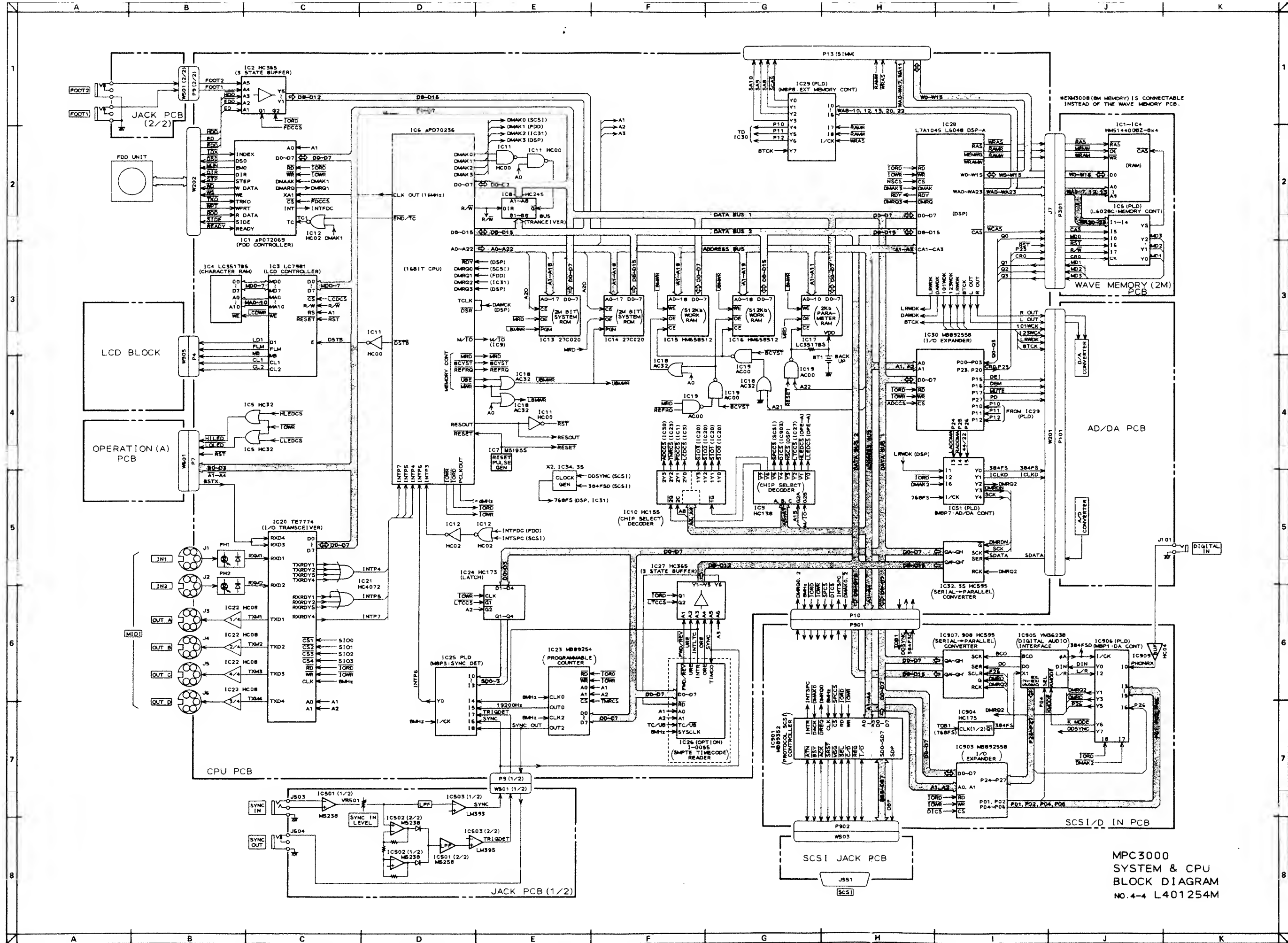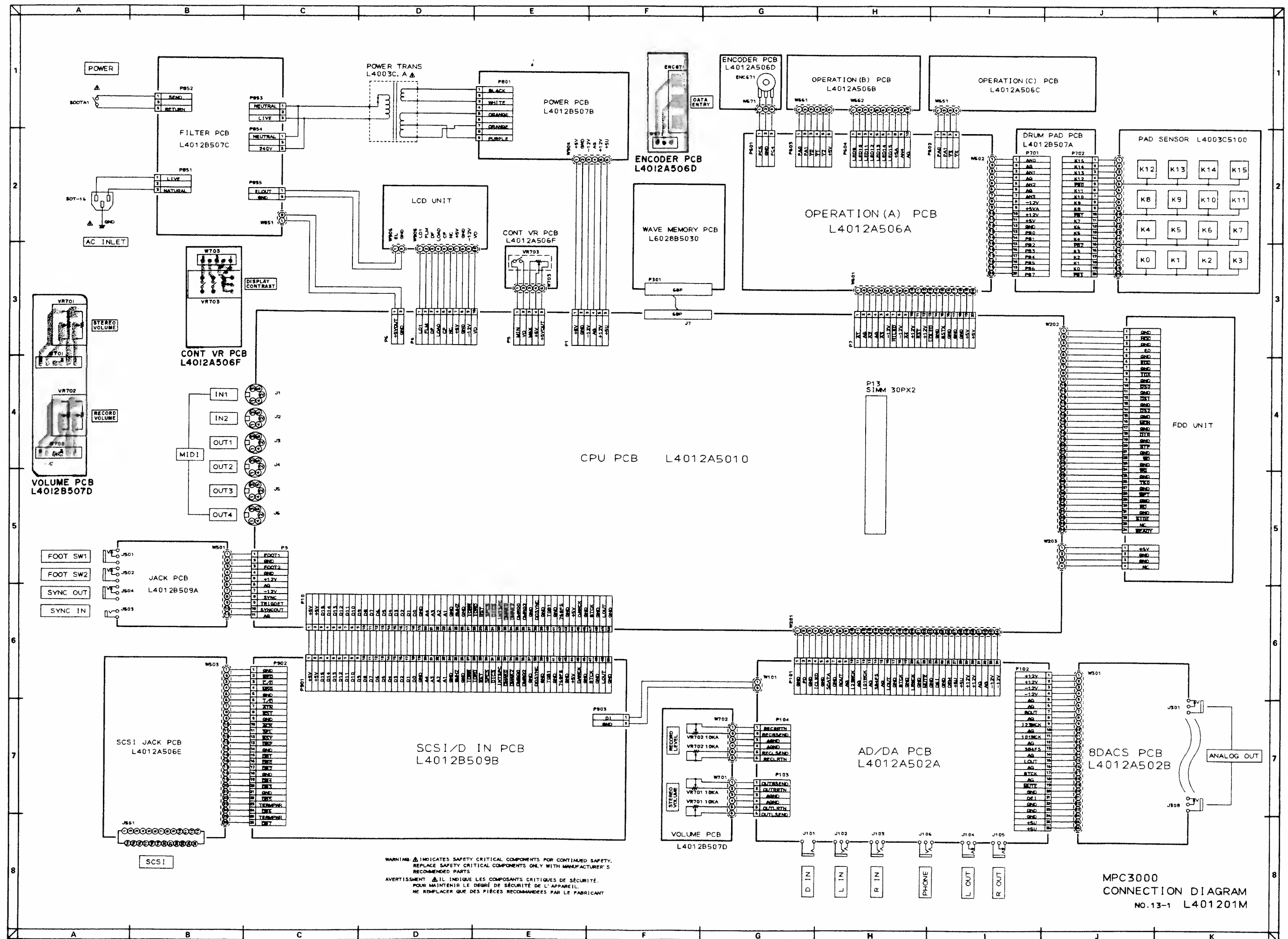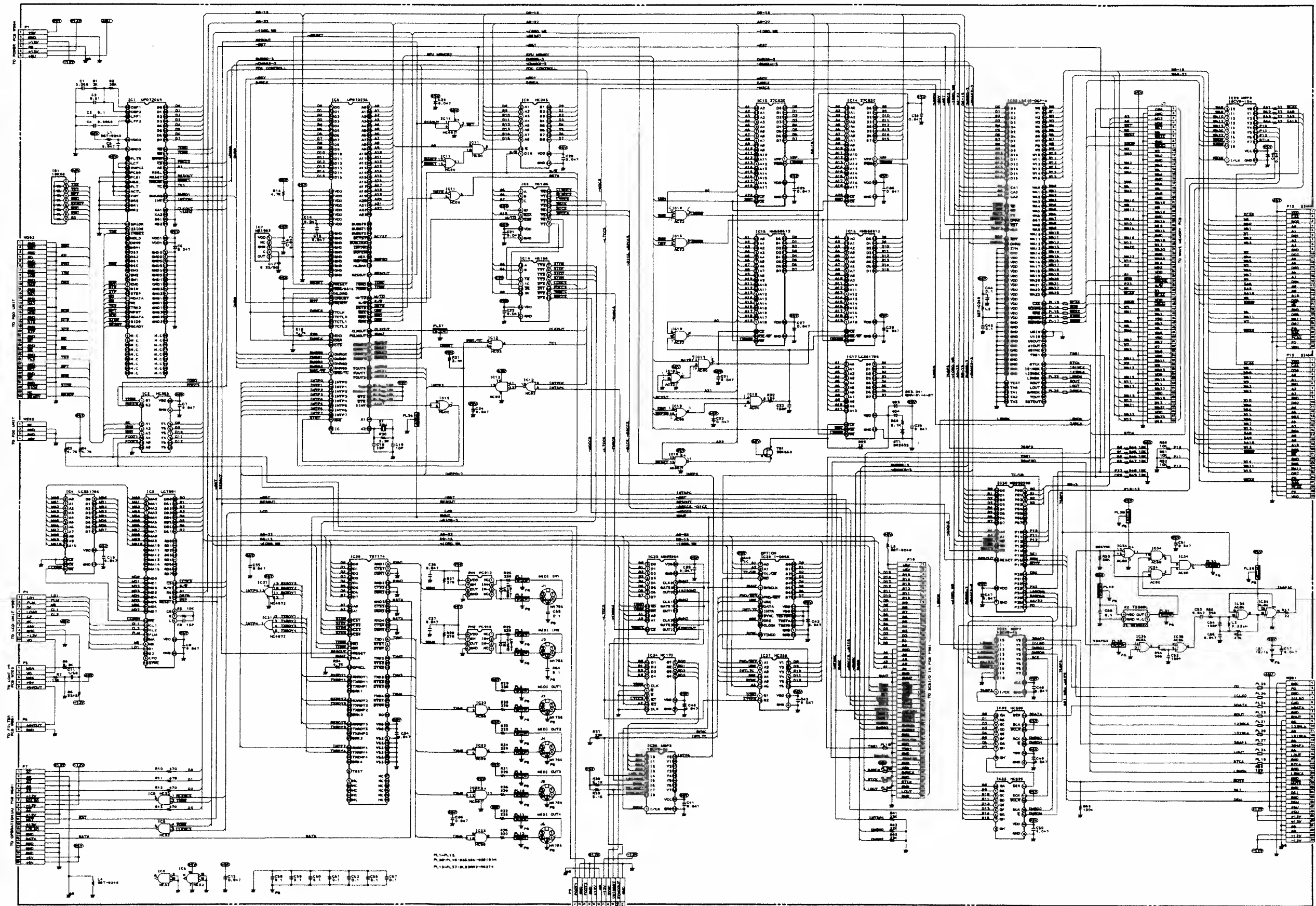
MPC3000 8DACS
BLOCK DIAGRAM
NO.4-1 L401251M

MPC3000
OPERATION
BLOCK DIAGRAM
NO.4-2 L401252M
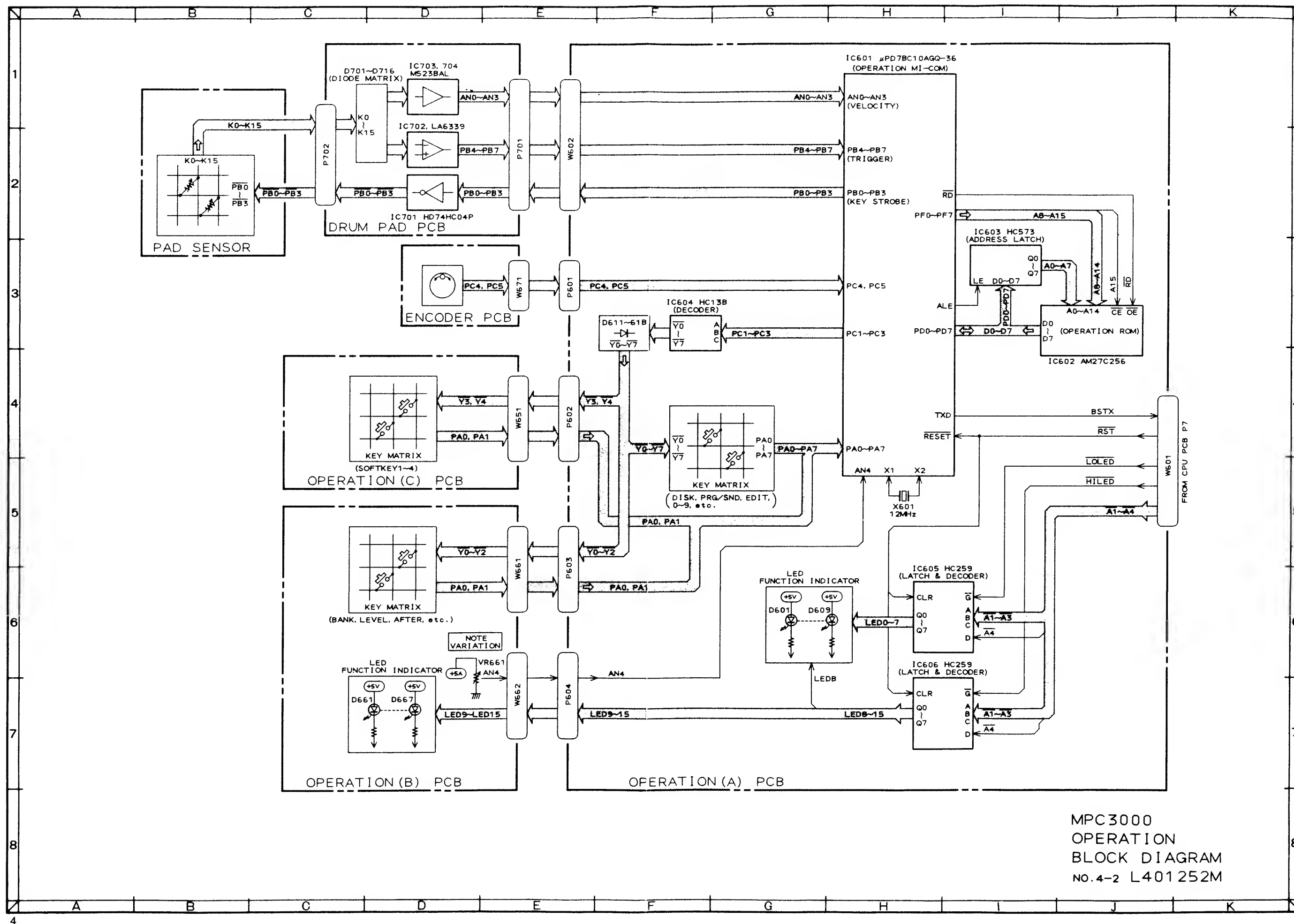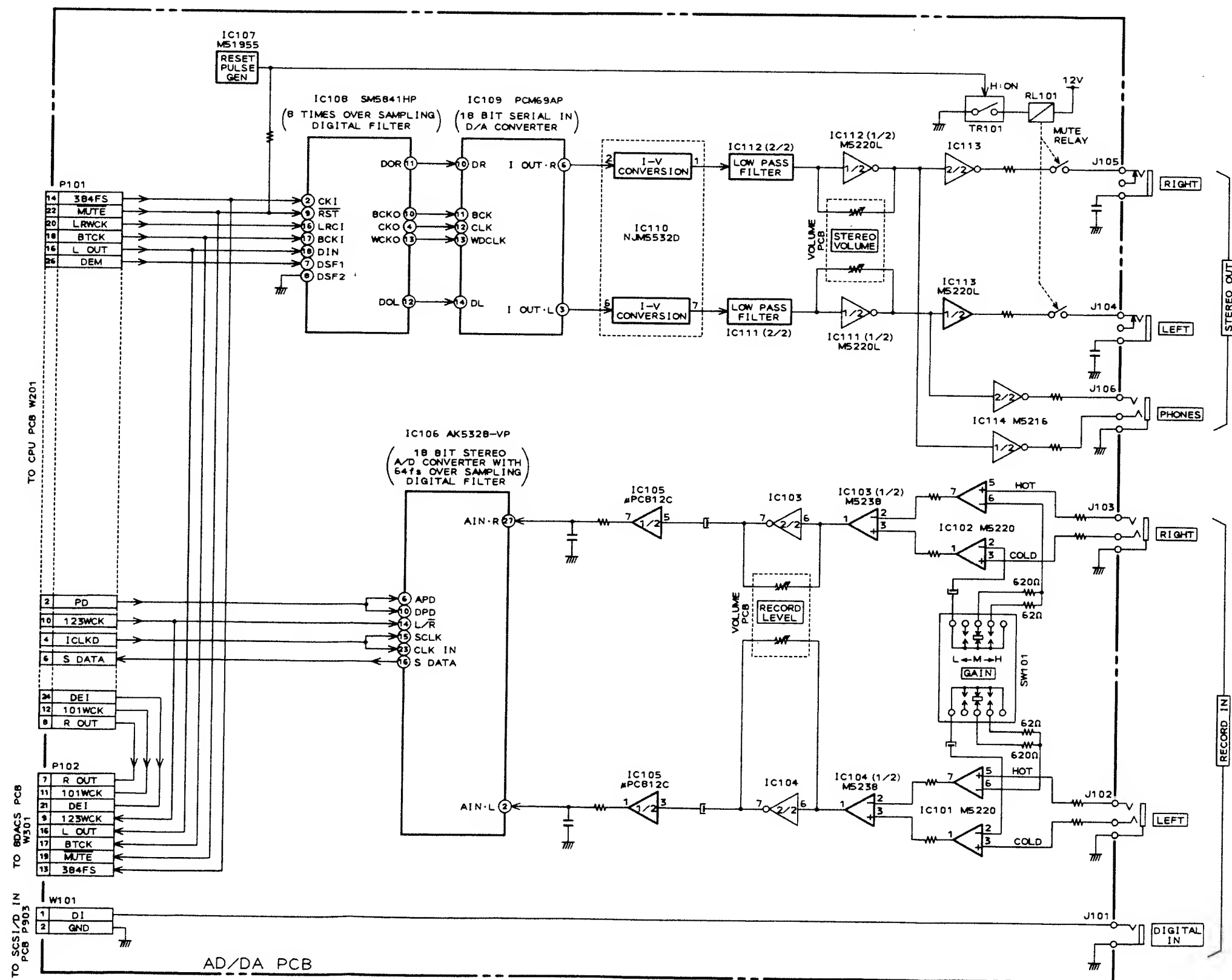
MPC3000
AD/DA
BLOCK DIAGRAM
No.4-3 L401253M

MPC3000
SYSTEM & CPU
BLOCK DIAGRAM
NO.4-4 L401254M

MPC3000
CONNECTION DIAGRAM
NO.13-1 L401201M
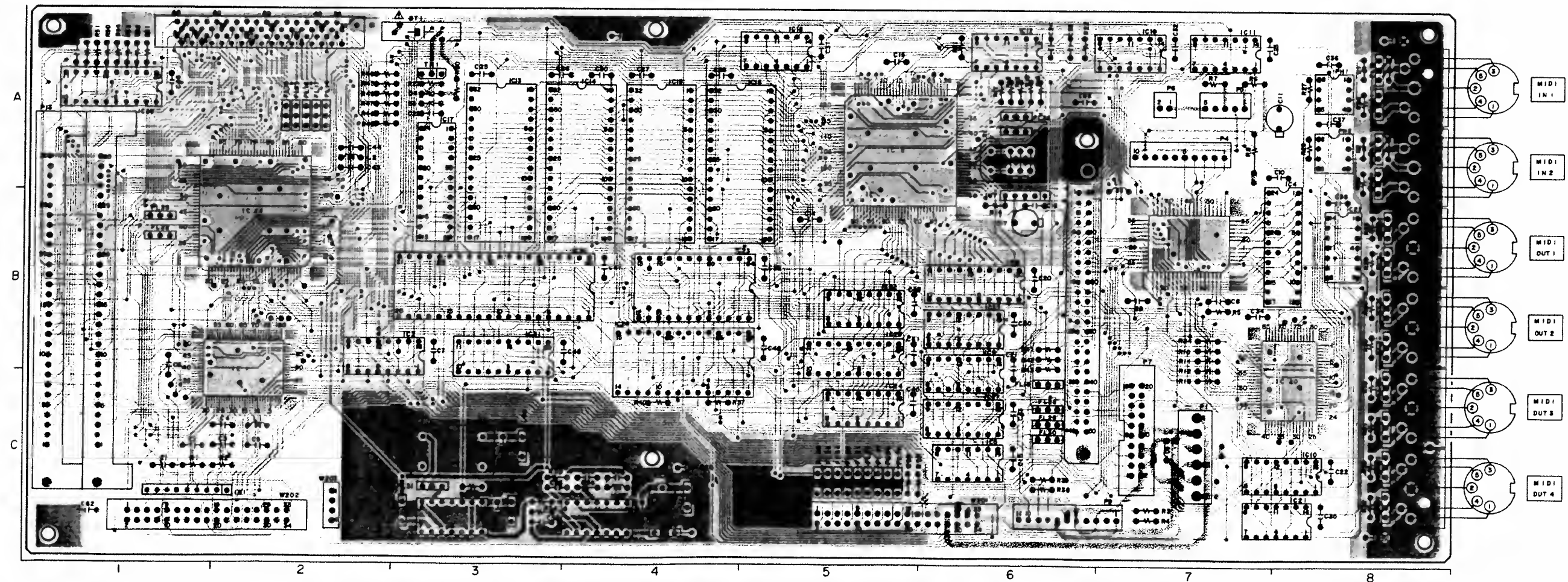
CPU PCB L4012A5010

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHM
ALL CAPACITORS IN μF
ALL ELECTROLYTIC CAPACITORS IN μF

MPC3000
CPU
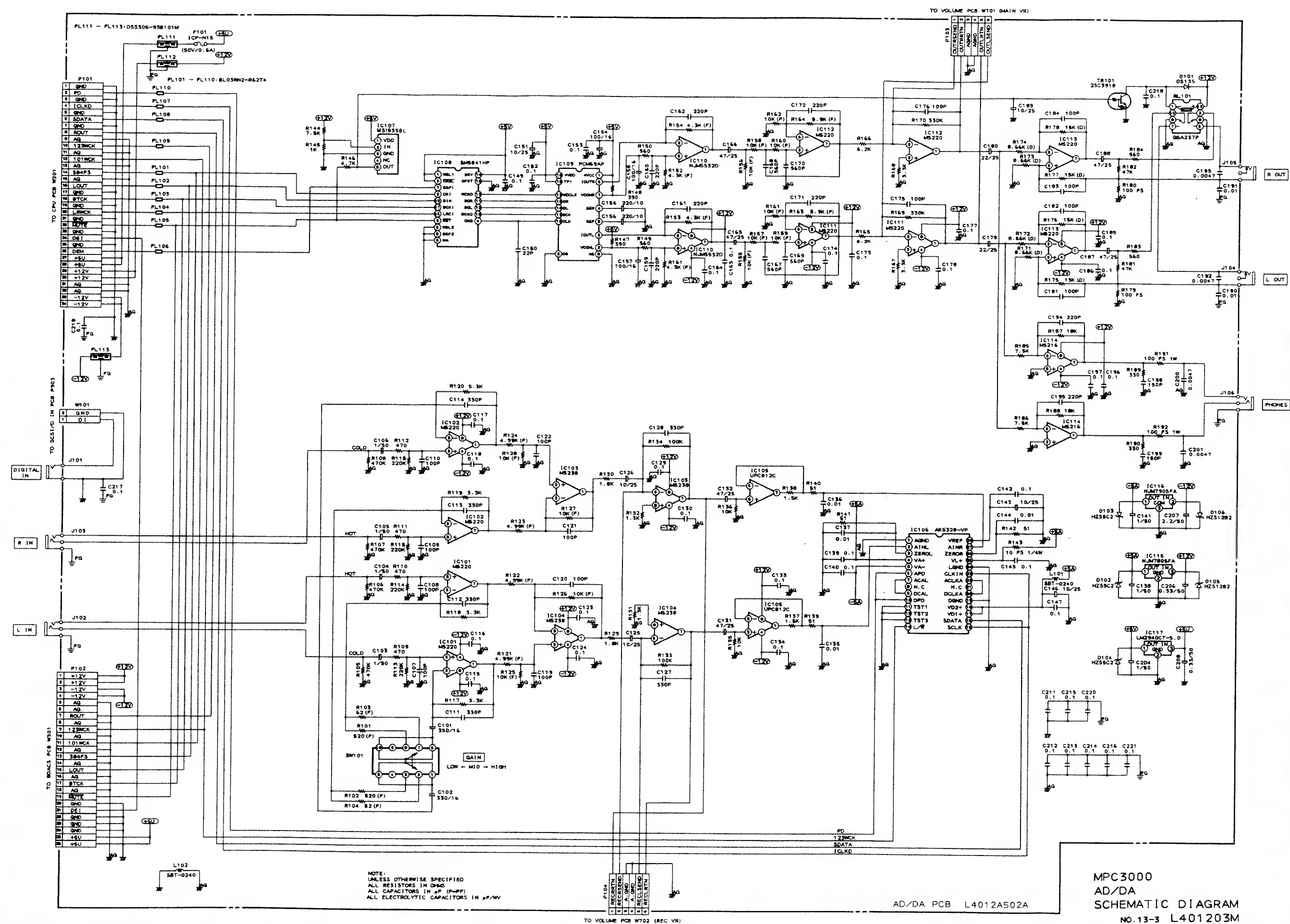SCHEMATIC DIAGRAM
NO.13-2 L401202M

PRINCIPAL PARTS LOCATION

ICs											
IC1 .... B,C2	IC12 .... A6	IC23 .... B4	IC34 .... C3			
IC2 .... B2,3	IC13 .... A3	IC24 .... C5	IC35 .... C4			
IC3 .... B7	IC14 .... A4	IC25 .... B5				
IC4 .... B6	IC15 .... A4	IC26 .... B4	**PHOTO SENSORs**			
IC5 .... C6	IC16 .... A4,5	IC27 .... C6	PH1 .... A8			
IC6 .... A5	IC17 .... A,B3	IC28 .... A,B2	PH2 .... A8			
IC7 .... A,B6	IC18 .... A5	IC29 .... A1				
IC8 .... B6	IC19 .... A7	IC30 .... B3	**TRANSISTOR**			
IC9 .... B,C6	IC20 .... B,C6	IC31 .... B3	TR1 .... A3			
IC10 .... C7,8	IC21 .... C7,6	IC32 .... B5				
IC11 .... A7	IC22 .... B8	IC33 .... B6				

CONNECTORs		WIREs	
J1 .... A8	P5 .... A7	W201 .... C5,6
J2 .... A8	P6 .... A7	W202 .... C1,2
J3 .... B8	P7 .... C7	W203 .... C2
J4 .... B8	P9 .... C6,7	
J5 .... C8	P10 .... B,C6	
J6 .... C8	P13 .... B1	
J7 .... A2		
P1 .... C7		
P4 .... A7		

CPU PCB L4012A5010
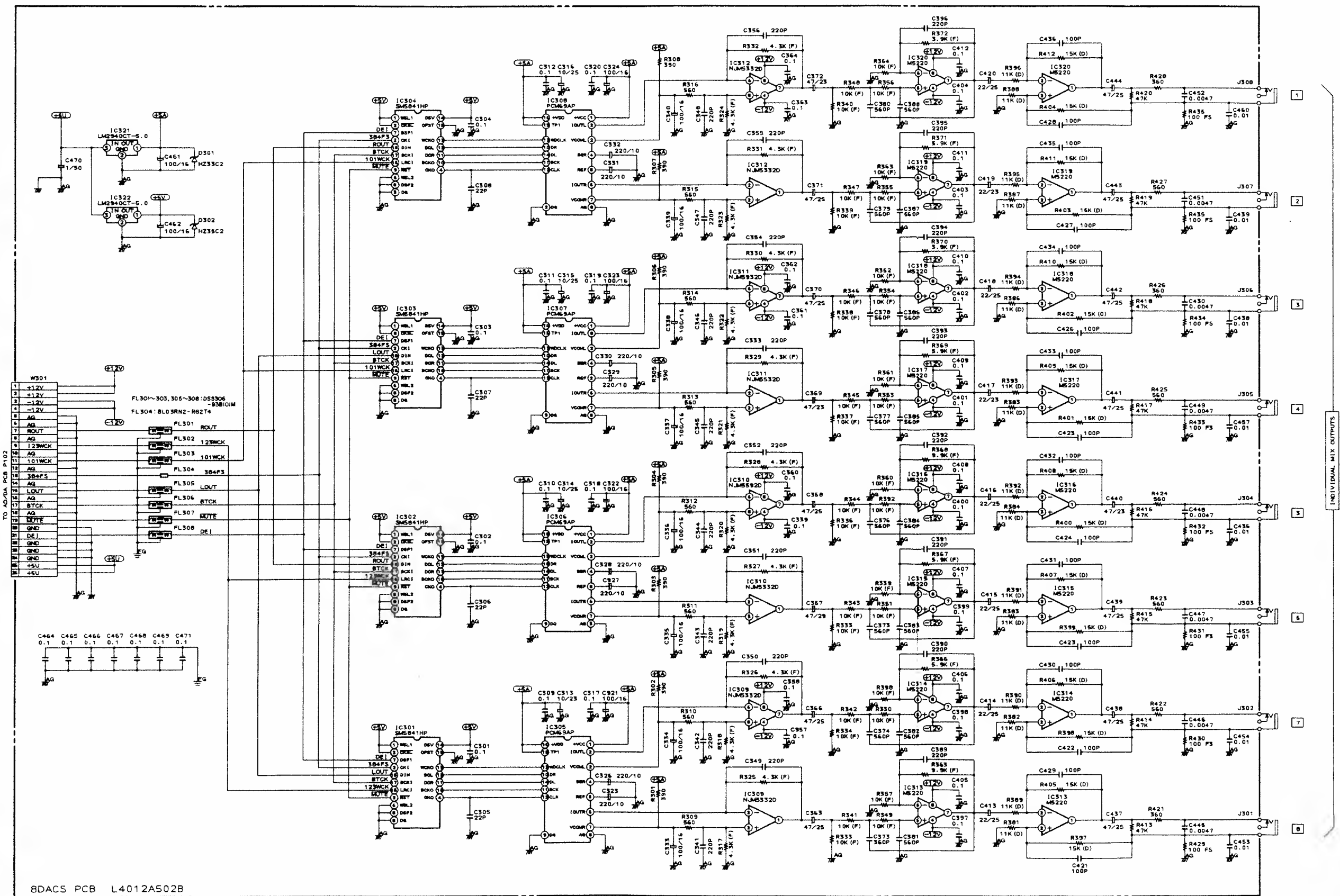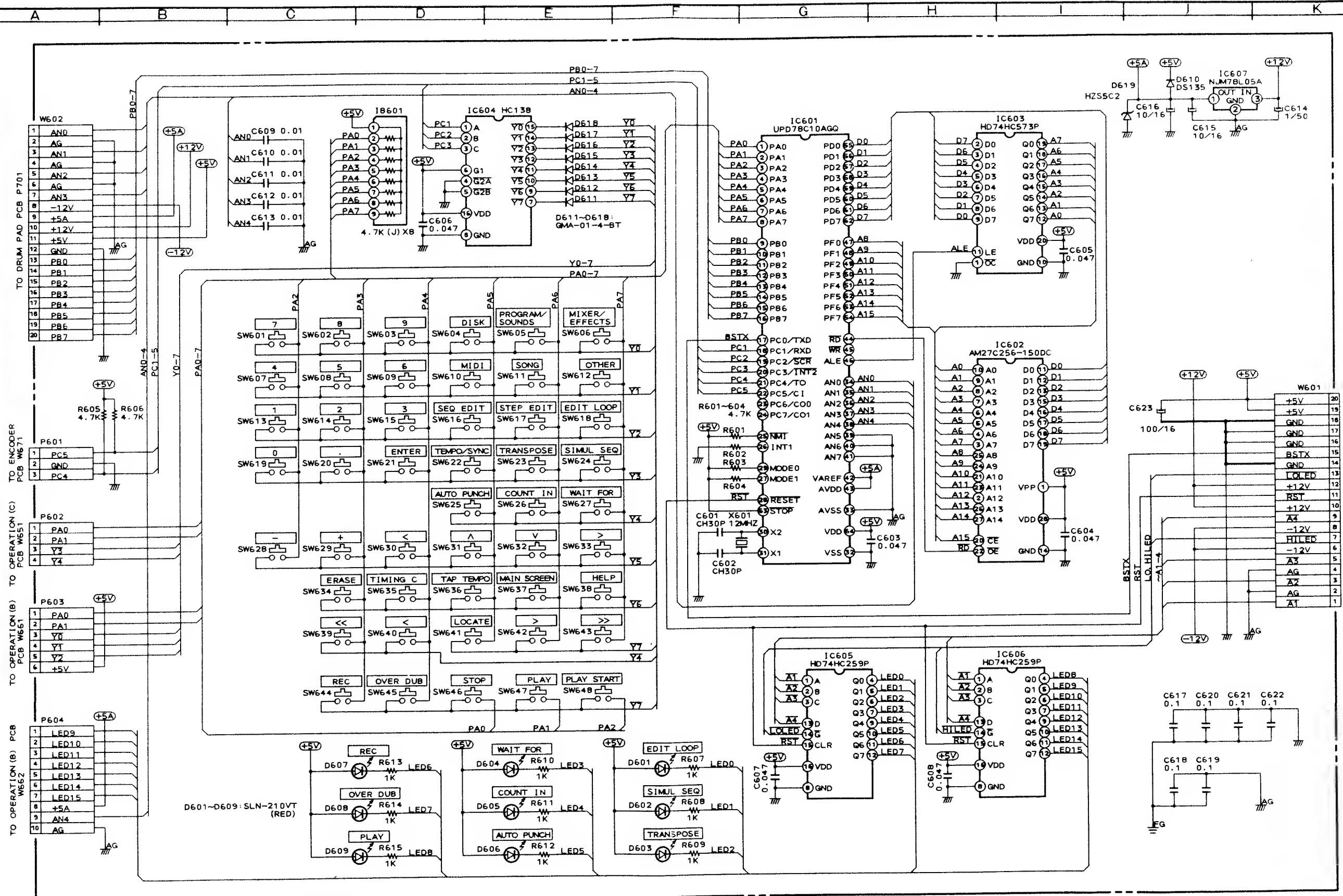
MPC3000
AD/DA
SCHEMATIC DIAGRAM
NO.13-3 L401203M

AD/DA PCB L4012A502A

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV

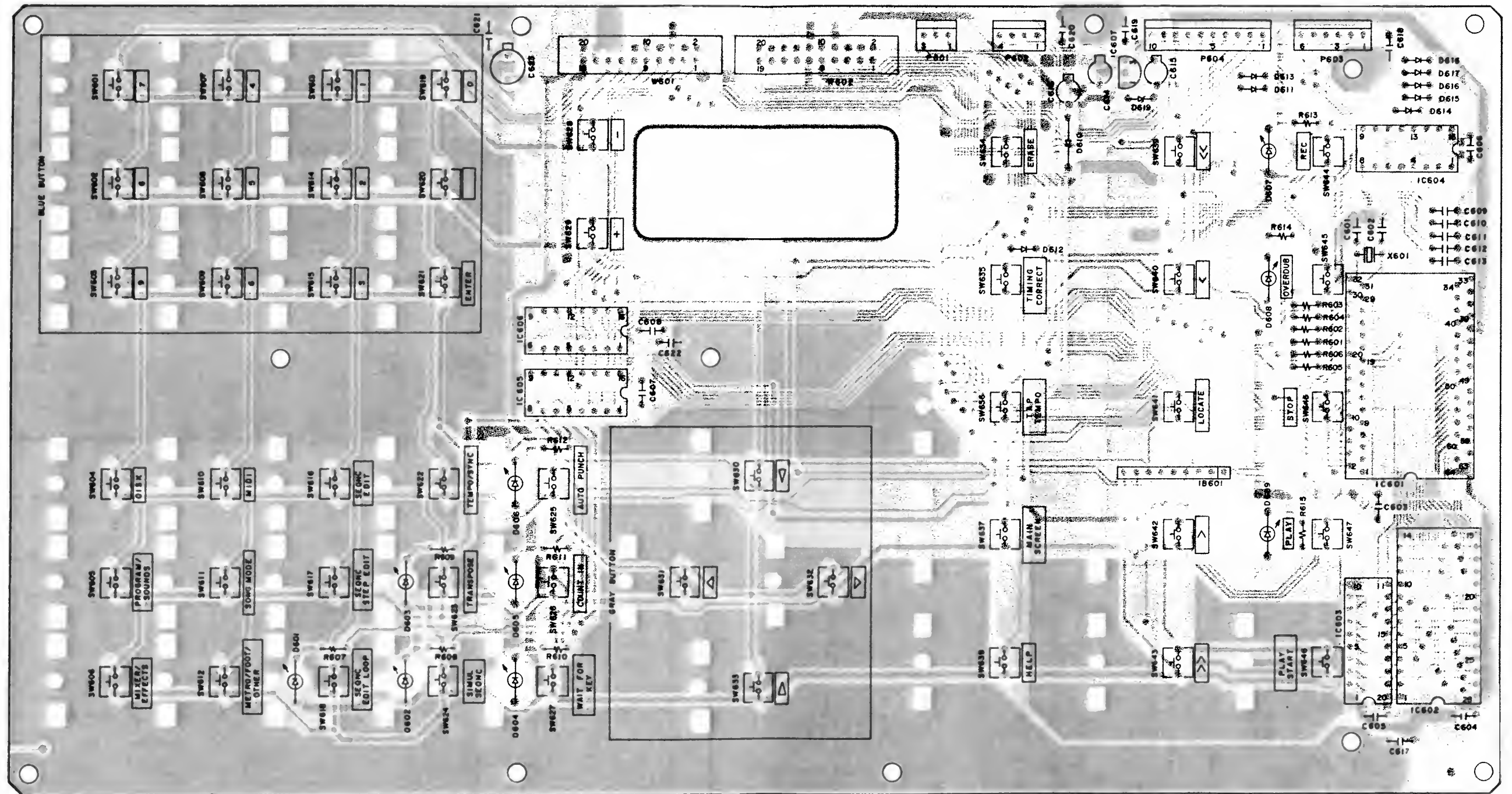TO VOLUME PCB W702 (REC VR)

AD/DA PCB L4012A502A

8DACS PCB   L4012A502B

MPC3000
8DACS
SCHEMATIC DIAGRAM
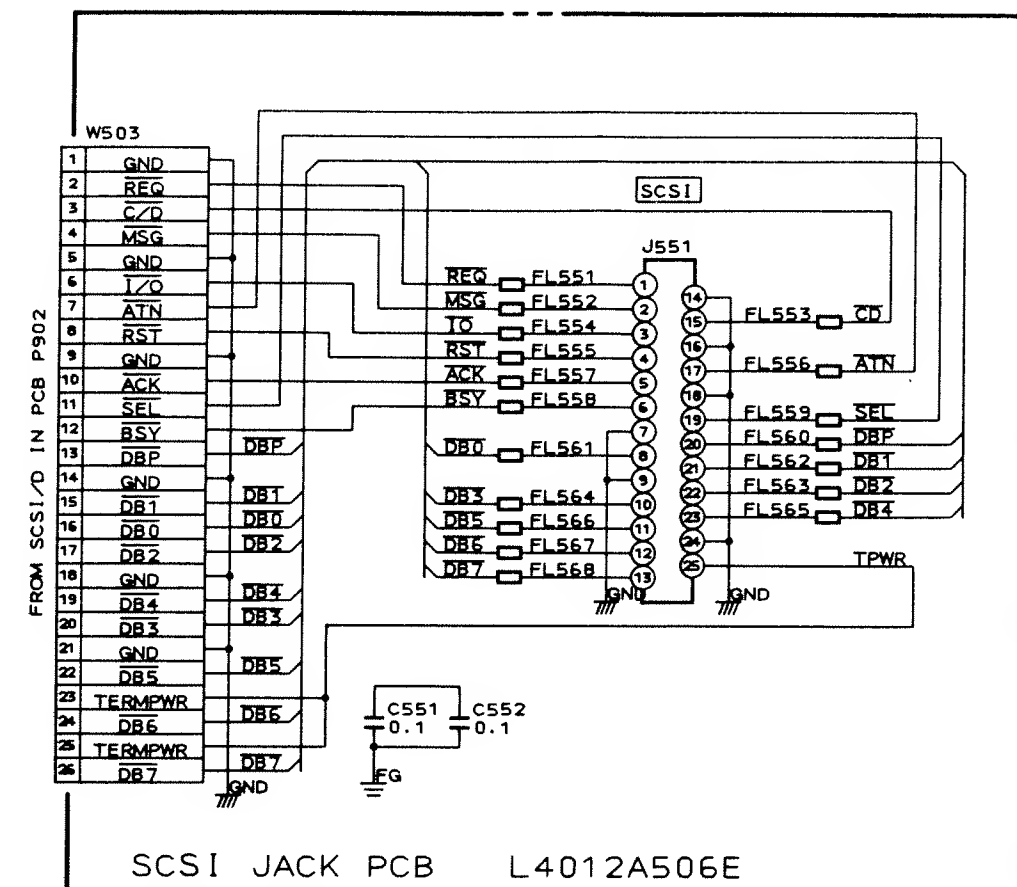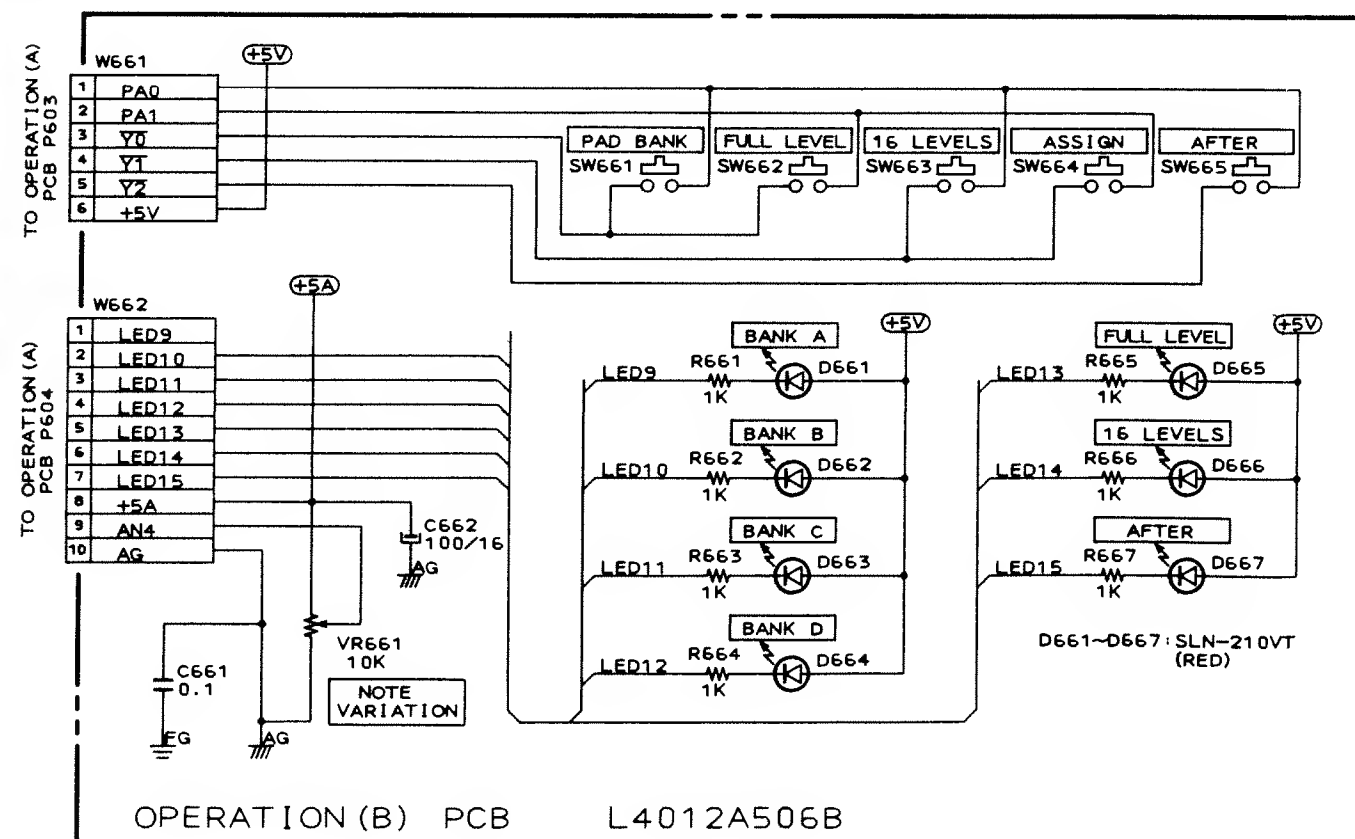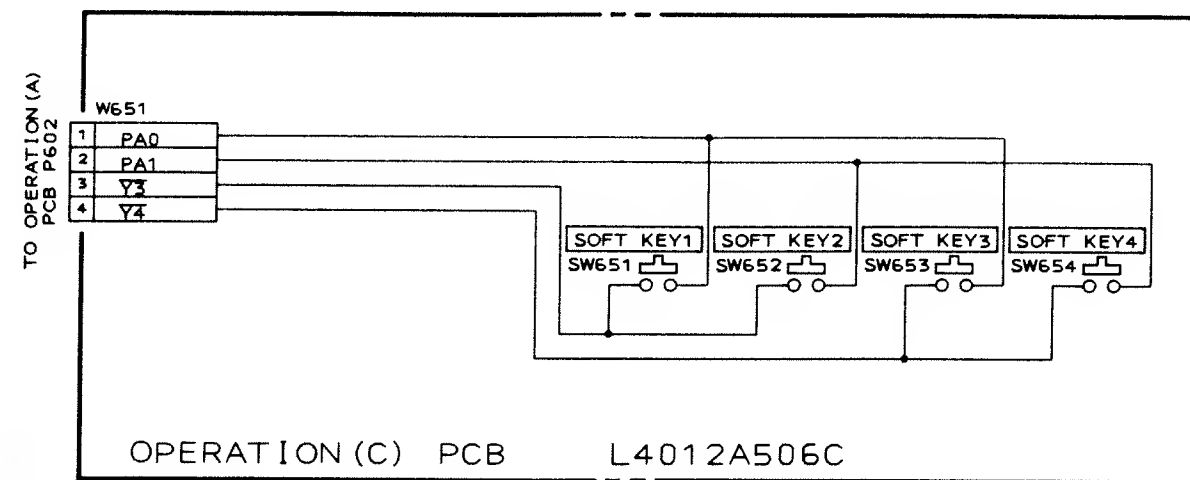NO.13-4 L401204M

8DACS PCB L4012A502B

OPERATION (A) PCB   L4012A506A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF (P=PF)/50WV (Z)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

MPC3000
OPERATION (A)
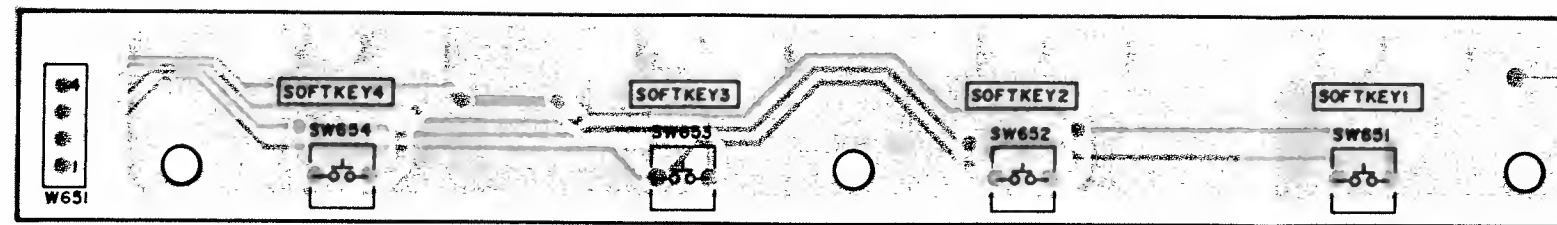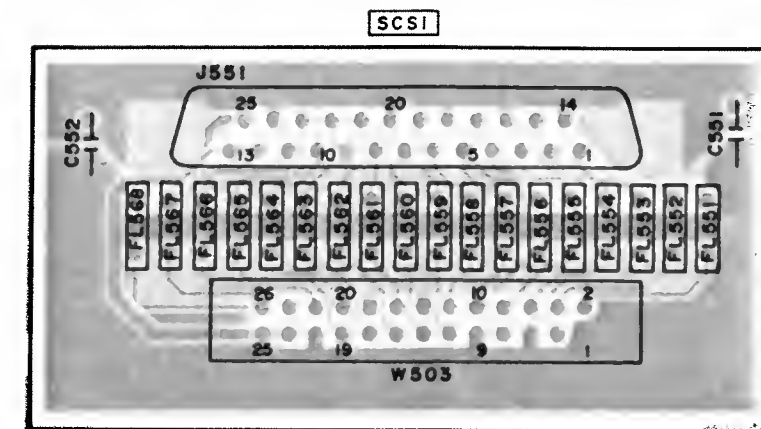SCHEMATIC DIAGRAM
NO.13-5 L401205M

OPERATION(A) PCB   L4012A506A

TO OPERATION (A) PCB P602

W651
1	PA0
2	PA1
3	Y3
4	Y4

SOFT KEY1 SW651
SOFT KEY2 SW652
SOFT KEY3 SW653
SOFT KEY4 SW654

OPERATION (C) PCB L4012A506C

W503
1	GND
2	REQ
3	C/D
4	MSG
5	GND
6	I/O
7	ATN
8	RST
9	GND
10	ACK
11	SEL
12	BSY
13	DBP
14	GND
15	DB1
16	DB0
17	DB2
18	GND
19	DB4
20	DB3
21	GND
22	DB5
23	TERMPWR
24	DB6
25	TERMPWR
26	DB7

FROM SCSI/D IN PCB P902

SCSI

J551

REQ FL551
MSG FL552
I/O FL554
RST FL555
ACK FL557
BSY FL558
DB0 FL561
DB3 FL564
DB5 FL566
DB6 FL567
DB7 FL568

FL553 CD
FL556 ATN
FL559 SEL
FL560 DBP
FL562 DB1
FL563 DB2
FL565 DB4

DBP DB1 DB0 DB2 DB4 DB3 DB5 DB6 DB7

GND GND TPWR

C551 0.1 C552 0.1
FG
GND

SCSI JACK PCB L4012A506E

TO OPERATION (A) PCB P603

+5V

W661
1	PA0
2	PA1
3	Y0
4	Y1
5	Y2
6	+5V

PAD BANK SW661
FULL LEVEL SW662
16 LEVELS SW663
ASSIGN SW664
AFTER SW665

TO OPERATION (A) PCB P604

+5A

W662
1	LED9
2	LED10
3	LED11
4	LED12
5	LED13
6	LED14
7	LED15
8	+5A
9	AN4
10	AG

C662 100/16
AG

VR661 10K
NOTE VARIATION

C661 0.1
FG AG

+5V
BANK A R661 1K D661
BANK B R662 1K D662
BANK C R663 1K D663
BANK D R664 1K D664

LED9 LED10 LED11 LED12

+5V
FULL LEVEL R665 1K D665
16 LEVELS R666 1K D666
AFTER R667 1K D667

LED13 LED14 LED15

D661~D667 : SLN-210VT (RED)

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN µF (P=PF) 50WV (Z)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
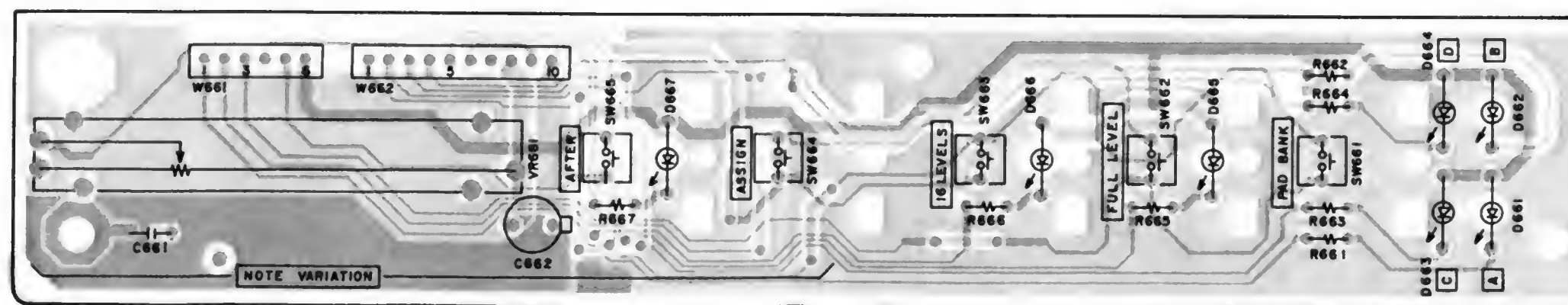
OPERATION (B) PCB L4012A506B

MPC3000
OPERATION (B), (C)
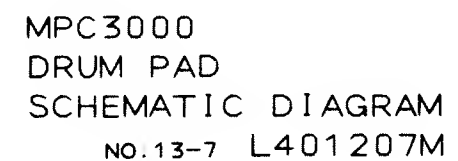& SCSI JACK
SCHEMATIC DIAGRAM
NO.13-6 L401206M
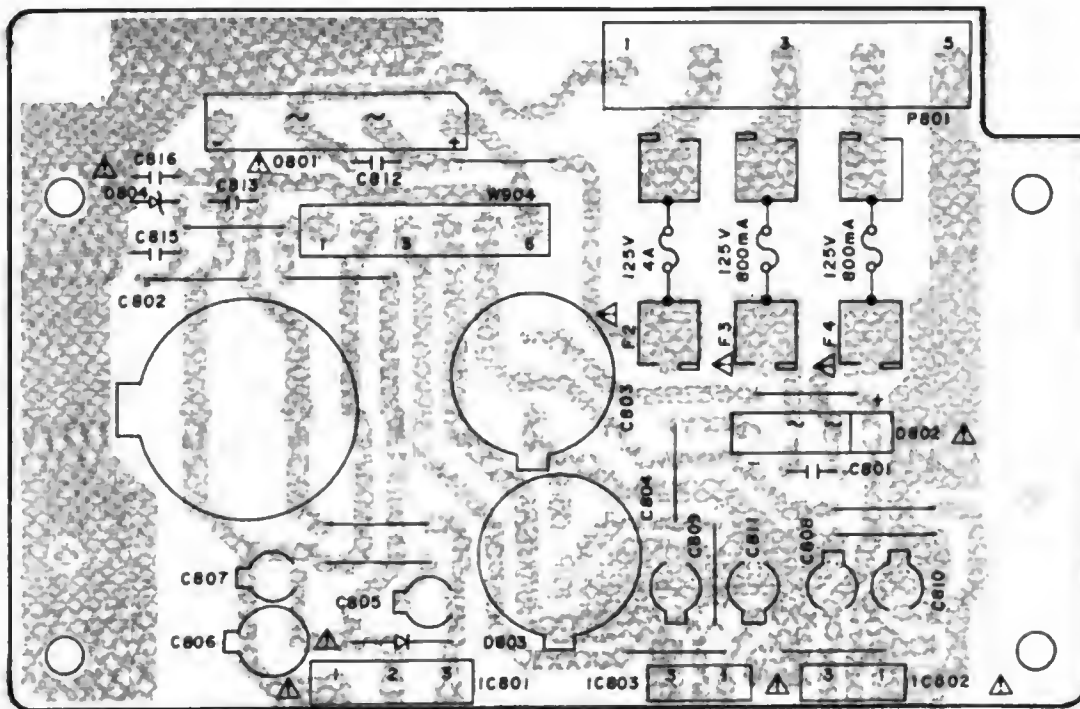
OPERATION(C) PCB L4012A506C

SCSI JACK PCB L4012A506E

OPERATION(B) PCB   L4012A506B
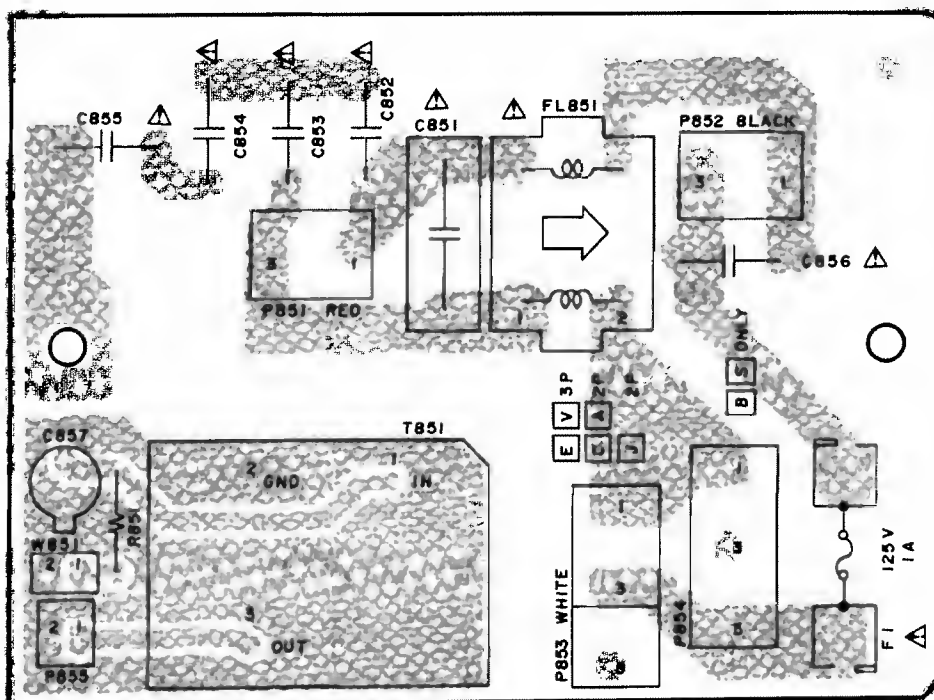
MPC3000
DRUM PAD
SCHEMATIC DIAGRAM
NO.13-7 L401207M

DRUM PAD PCB   L4012B507A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN µF (P=PF)/50V
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL DIODES ARE GMA-01-4-BT

P702
TO PAD SENSOR PCB
1 K15
2 K14
3 K13
4 K12
5 PB0
6 K11
7 K10
8 K9
9 K8
10 PB1
11 K7
12 K6
13 K5
14 K4
15 PB2
16 K3
17 K2
18 K1
19 K0
20 PB3

P701
TO OPERATION (A) PCB W602
20 PB7
19 PB6
18 PB5
17 PB4
16 PB3
15 PB2
14 PB1
13 PB0
12 GND
11 +5V
10 +12V
9 +5VA
8 −12V
7 AN3
6 AG
5 AN2
4 AG
3 AN1
2 AG
1 AN0

D701
D702
D703
D704
D705
D706
D707
D708
D709
D710
D711
D712
D713
D714
D715
D716

R710 2.7K   R709 100K   +5A   +5A
IC702 LA6339   PB4
R701 470K   R705 10K
IC702 LA6339   PB5
R702 470K   R706 10K
IC702 LA6339   PB6
R703 470K   R707 10K
IC702 LA6339   +12V   C713 0.047 (Z)   PB7
R704 470K   R708 10K
AG

IC701 HD74HC04P   PB0
IC701 HD74HC04P   PB1
IC701 HD74HC04P   PB2
IC701 HD74HC04P   PB3
IC701 HD74HC04P
IC701 HD74HC04P

+5V   +12V
C707 0.047 (Z)
C708 0.047 (Z)   AG
C706 10/25   AG
C714 0.1 (Z)   C705 10/25   AG
EG   −12V

R711 4.7K   C701 47P (J)   R715 20K
IC703 M5238AL
C709 560P (K)   AG   D717   +5A   R719 470   AN0
R723 4.7K   D718   AG
AG

R712 4.7K   C702 47P (J)   R716 20K
+12V   IC703 M5238AL
C710 560P (K)   AG   D719   +5A   R720 470   AN1
R724 4.7K   −12V   C703 47P (J)   D720   AG
AG

R713 4.7K   R717 20K
IC704 M5238AL
C711 560P (K)   AG   D721   +5A   R721 470   AN2
R725 4.7K   D722   AG
AG

R714 4.7K   C704 47P (J)   R718 20K
+12V   IC704 M5238AL
C712 560P (K)   AG   D723   +5A   R722 470   AN3
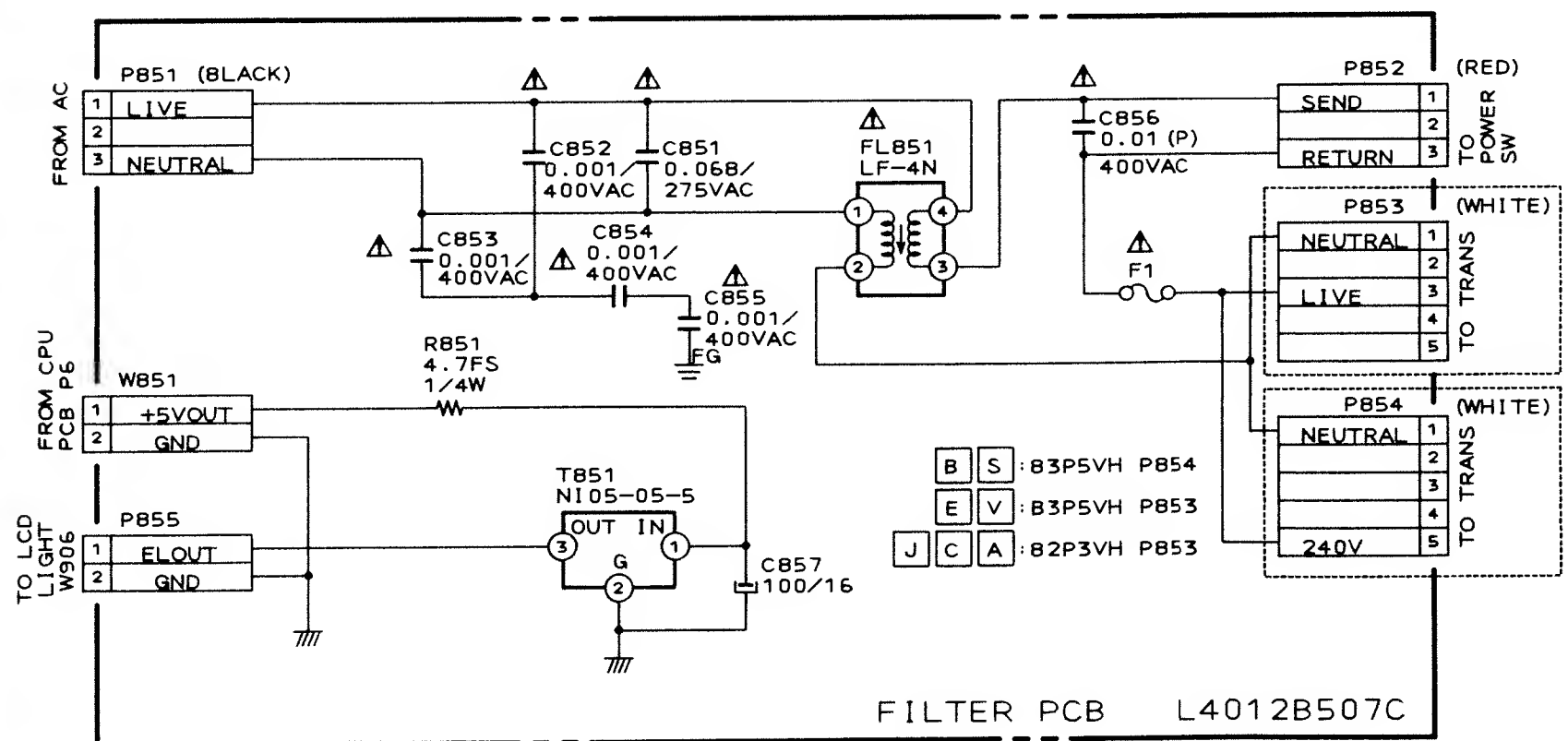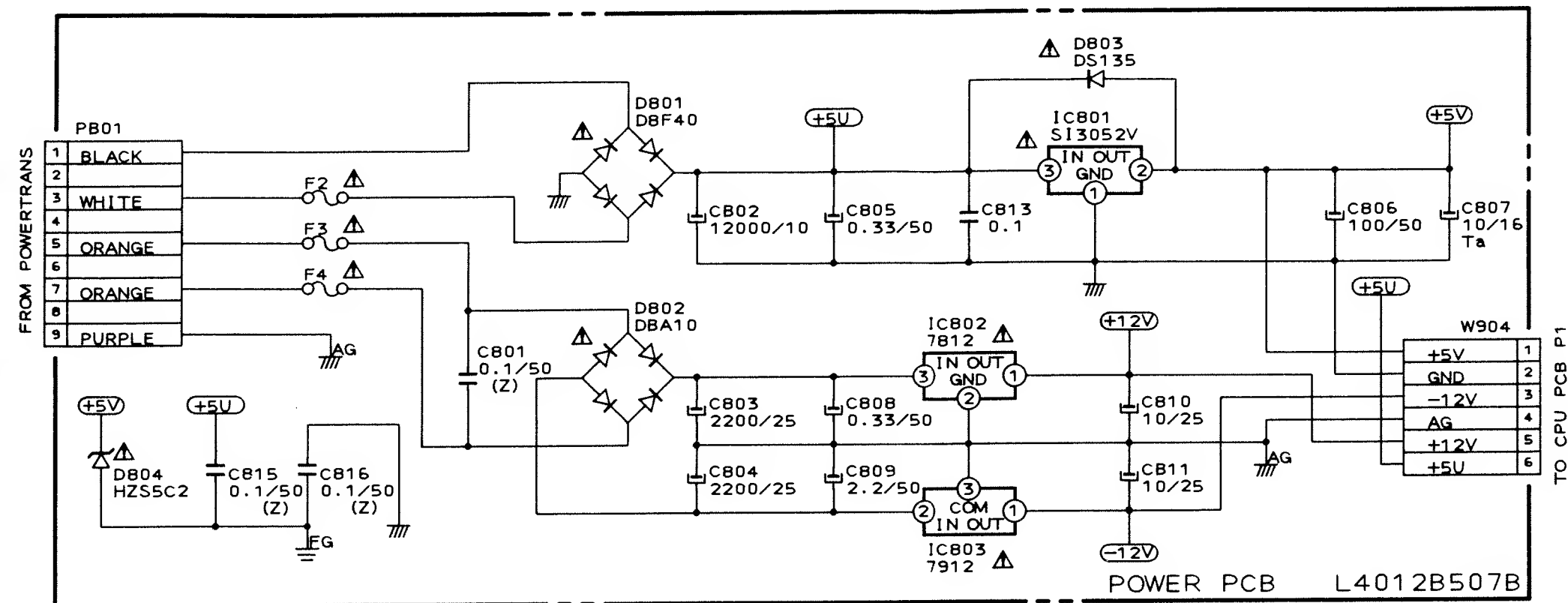R726 4.7K   −12V   D724   AG
AG

DRUM PAD PCB L4012B507A

POWER PCB L4012B507B

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


FILTER PCB L4012B507C

POWER PCB L4012B507B

FROM POWERTRANS

PB01
1 BLACK
2
3 WHITE
4
5 ORANGE
6
7 ORANGE
8
9 PURPLE

F2, F3, F4

AG

D801 D8F40
D802 DBA10

+5U
+5V
+12V
+5U
-12V

D803 DS135

IC801 SI3052V
3 IN OUT 2
GND
1

IC802 7812
3 IN OUT 1
GND
2

IC803 7912
3 COM 1
IN OUT

CB02 12000/10
C805 0.33/50
C813 0.1
C806 100/50
C807 10/16 Ta
C801 0.1/50 (Z)
C803 2200/25
C808 0.33/50
C810 10/25
C804 2200/25
C809 2.2/50
CB11 10/25

+5V +5U
D804 HZS5C2
C815 0.1/50 (Z)
C816 0.1/50 (Z)
EG

W904
1 +5V
2 GND
3 -12V
4 AG
5 +12V
6 +5U

TO CPU PCB P1

FILTER PCB L4012B507C

FROM AC
P851 (BLACK)
1 LIVE
2
3 NEUTRAL

C852 0.001/400VAC
C851 0.068/275VAC
C853 0.001/400VAC
C854 0.001/400VAC
C855 0.001/400VAC
EG

FL851 LF-4N
1 — 4
2 — 3

C856 0.01 (P) 400VAC

F1

P852 (RED)
1 SEND
2
3 RETURN
TO POWER SW

P853 (WHITE)
1 NEUTRAL
2
3 LIVE
4
5
TO TRANS

P854 (WHITE)
1 NEUTRAL
2
3
4
5 240V
TO TRANS

FROM CPU PCB P6
W851
1 +5VOUT
2 GND

R851 4.7FS 1/4W

P855
1 ELOUT
2 GND
TO LCD LIGHT W906

T851 NI05-05-5
3 OUT IN 1
G
2

C857 100/16

B S : 83P5VH P854
E V : B3P5VH P853
J C A : 82P3VH P853

	C A	J	E V B S
F1	1A 125V	1A 250V	T1A 250V
F2	4A 125V	4A 250V	T3.15A 250V
F3	800mA 125V	800mA 250V	T630mA 125V
F4	800mA 125V	800mA 250V	T630mA 125V

WARNING: ⚠ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT
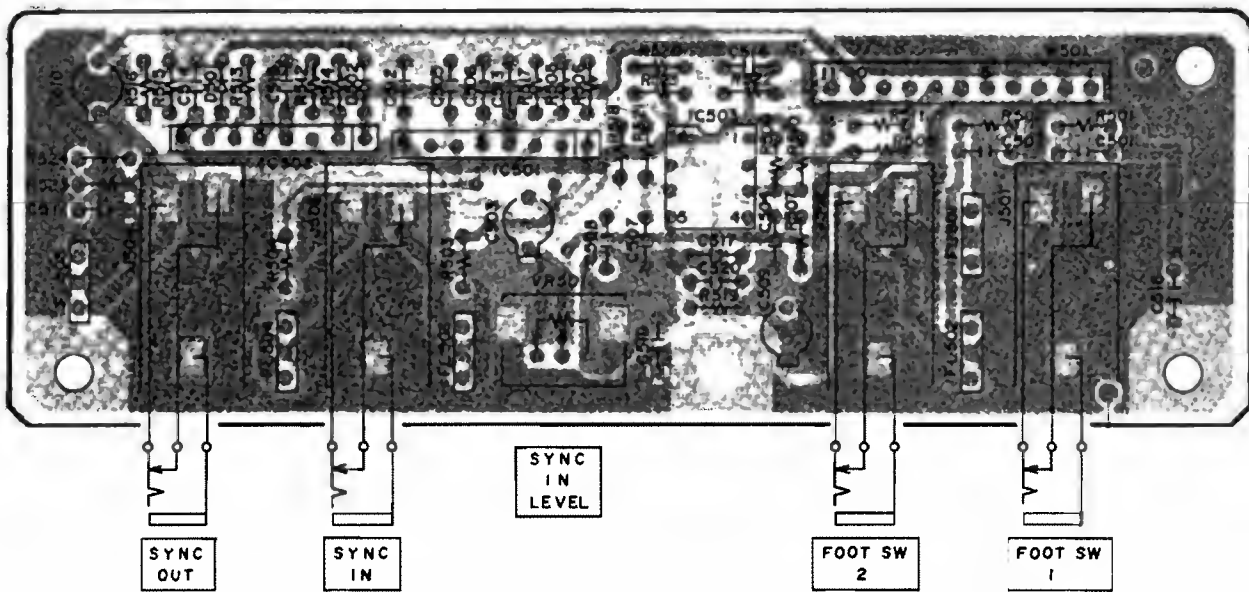
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P-PF) (M)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)

MPC3000
POWER & FILTER
SCHEMATIC DIAGRAM
NO.13-8 L401208M
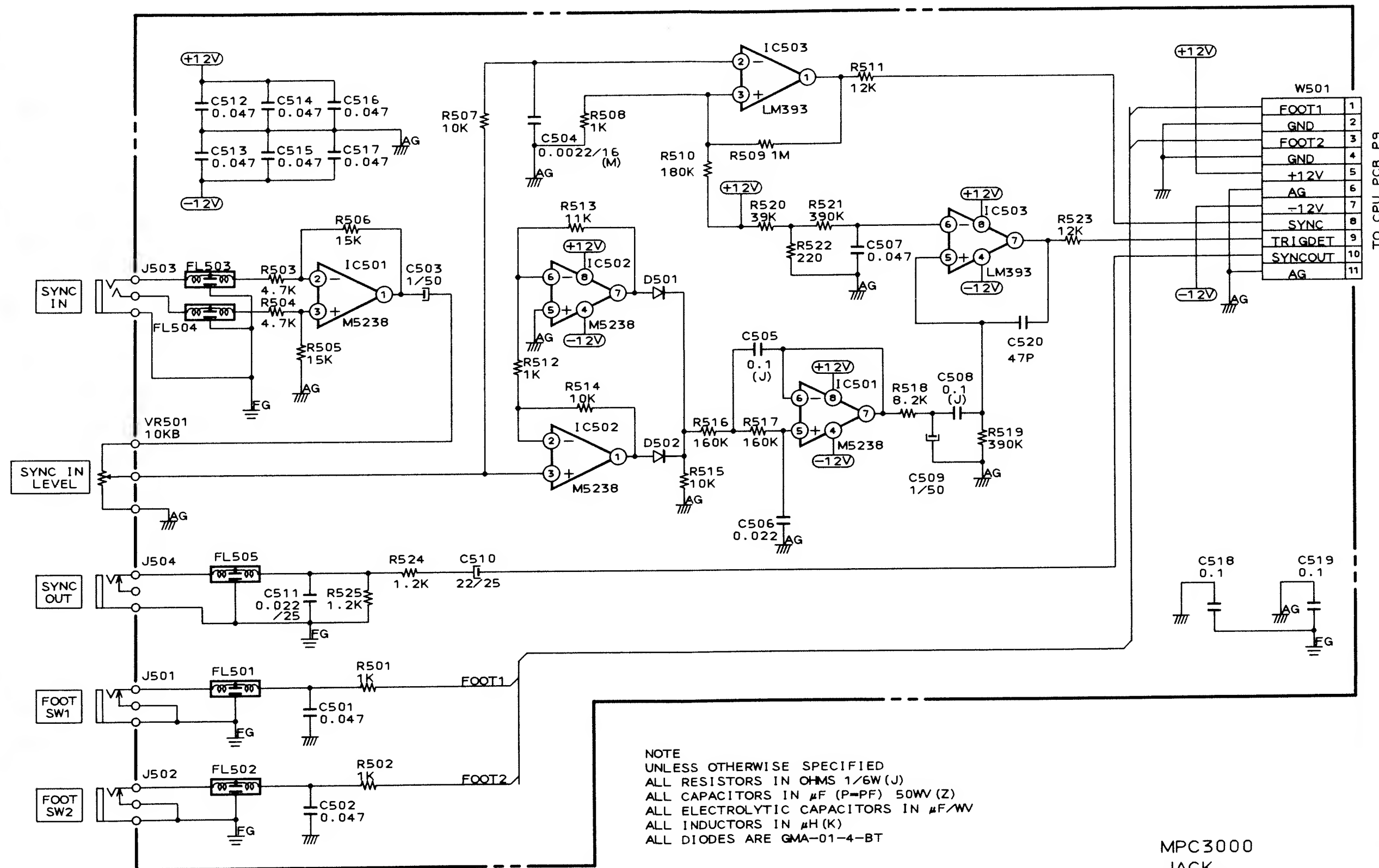
MPC3000
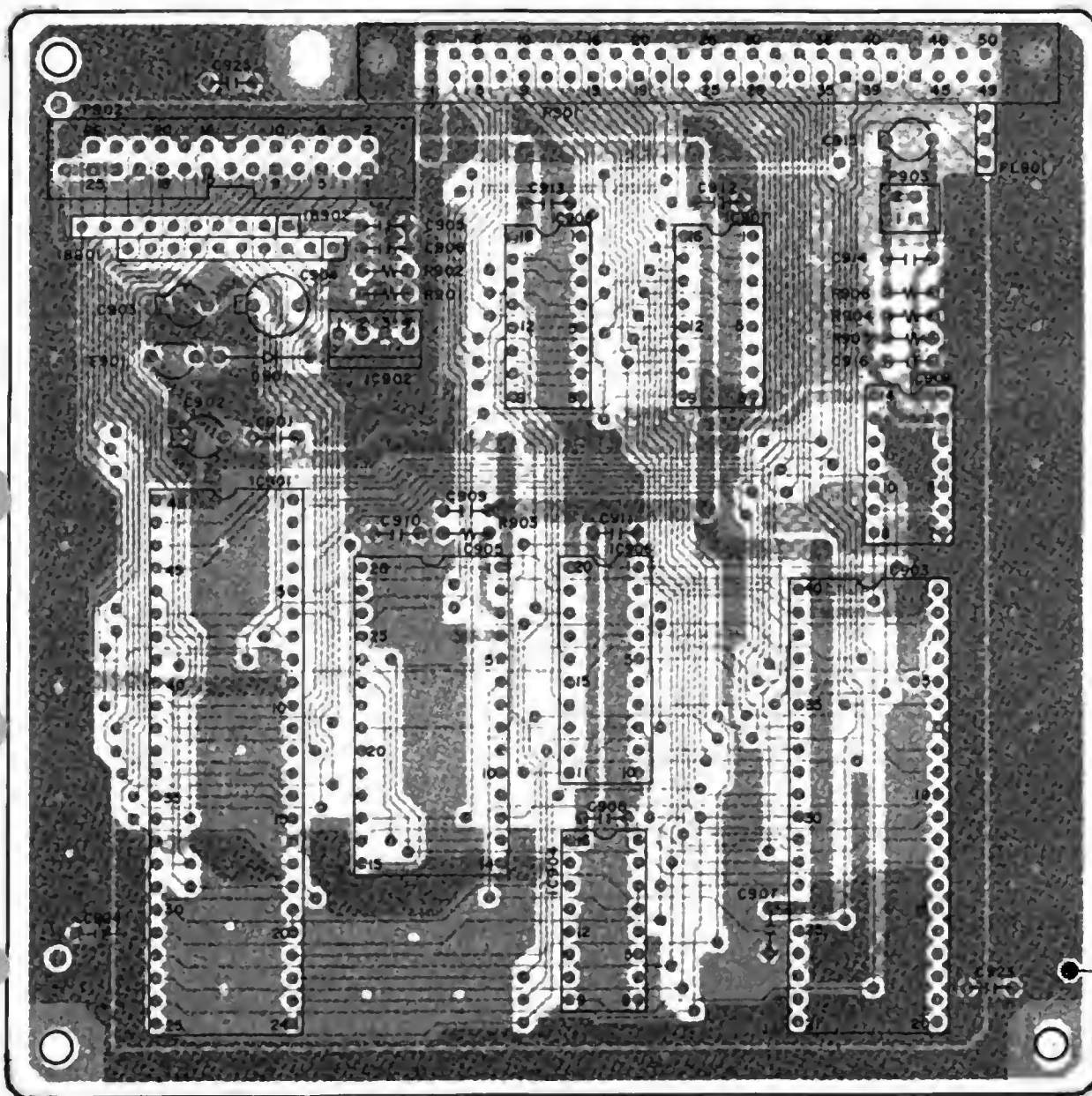JACK
SCHEMATIC DIAGRAM
NO.13-9 L401209M

JACK PCB L4012B509A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF (P=PF) 50WV(Z)
ALL ELECTROLYTIC CAPACITORS IN μF/WV
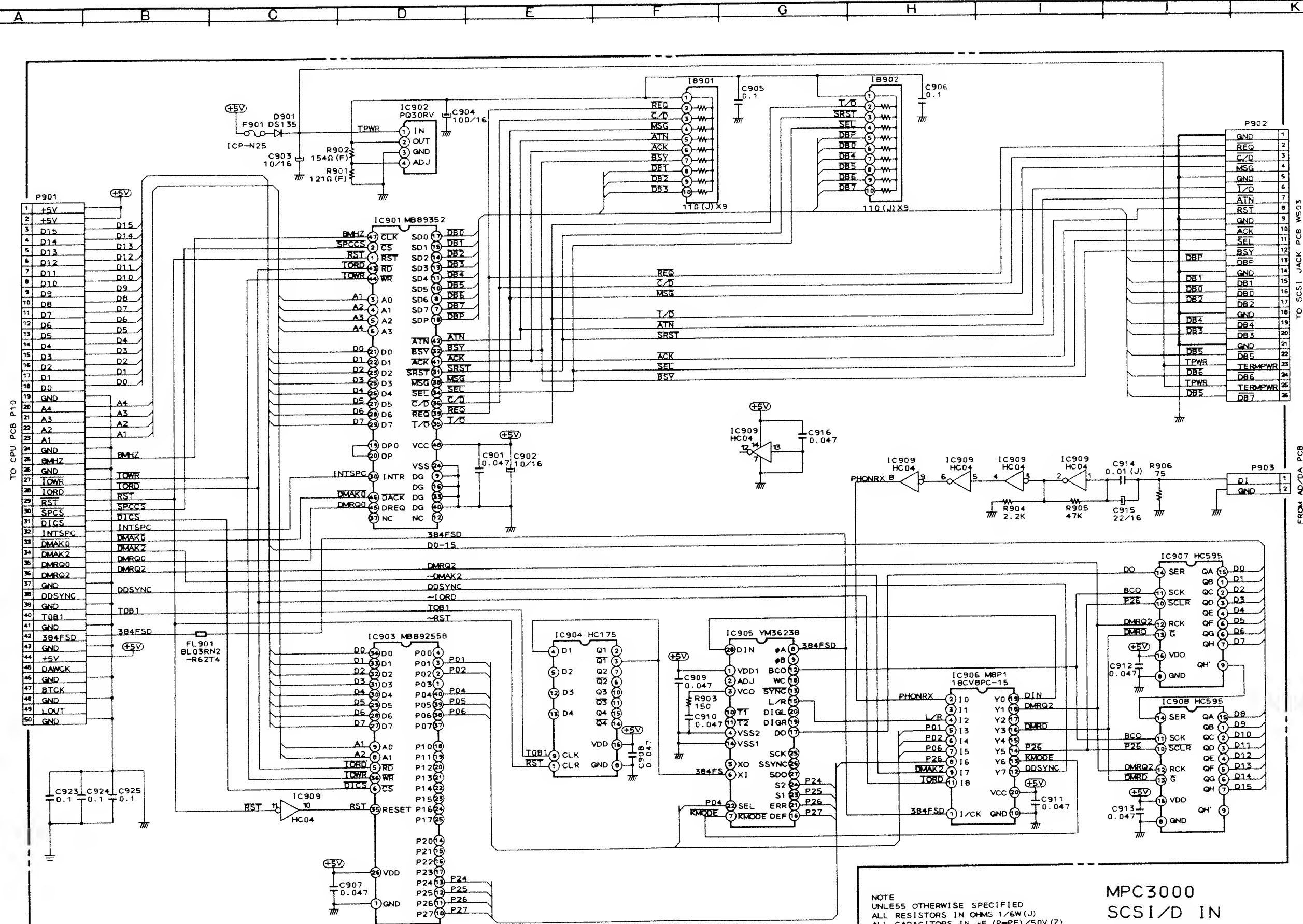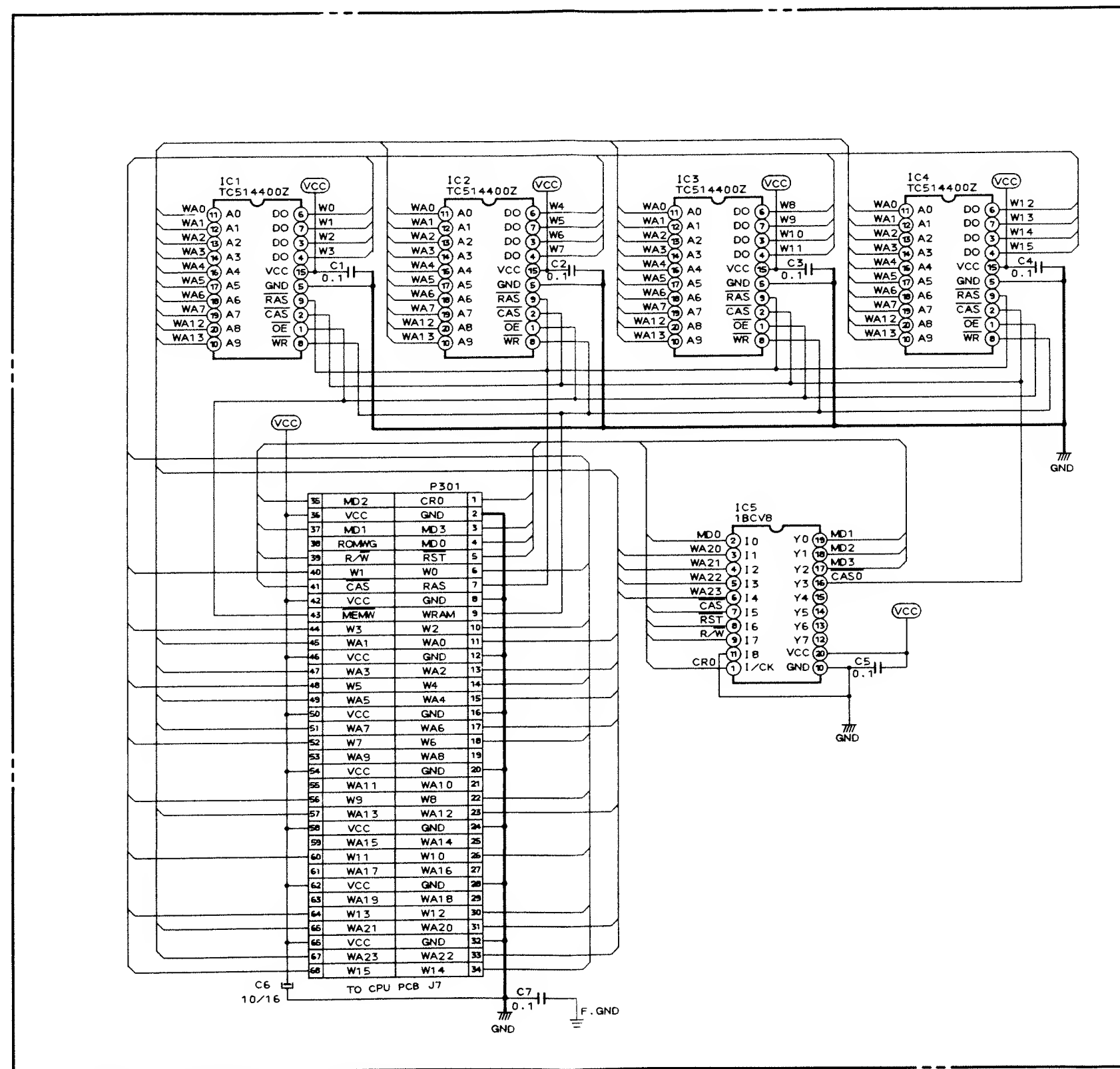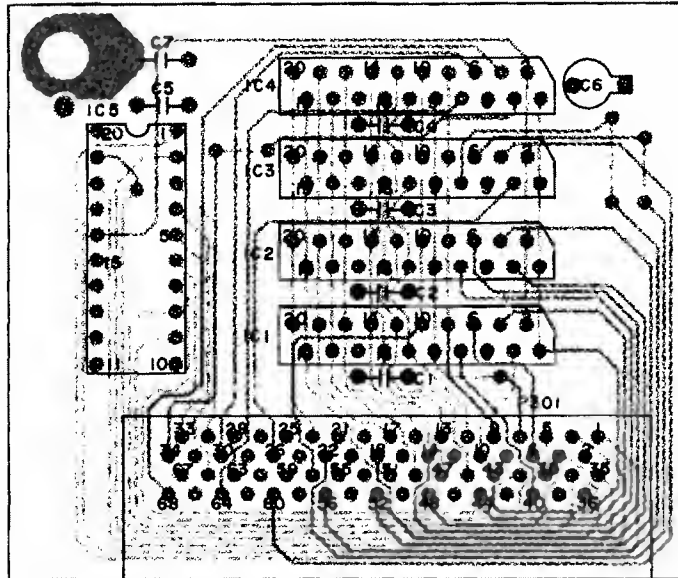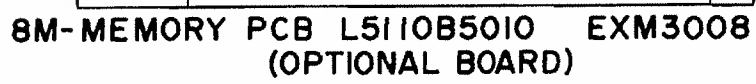ALL INDUCTORS IN μH(K)
ALL DIODES ARE GMA-01-4-BT

SYNC
IN
LEVEL

SYNC
OUT

SYNC
IN

FOOT SW
2

FOOT SW
1

JACK PCB L4012B509A

SCSI/D IN PCB   L4012B509B

MPC3000
SCSI/D IN
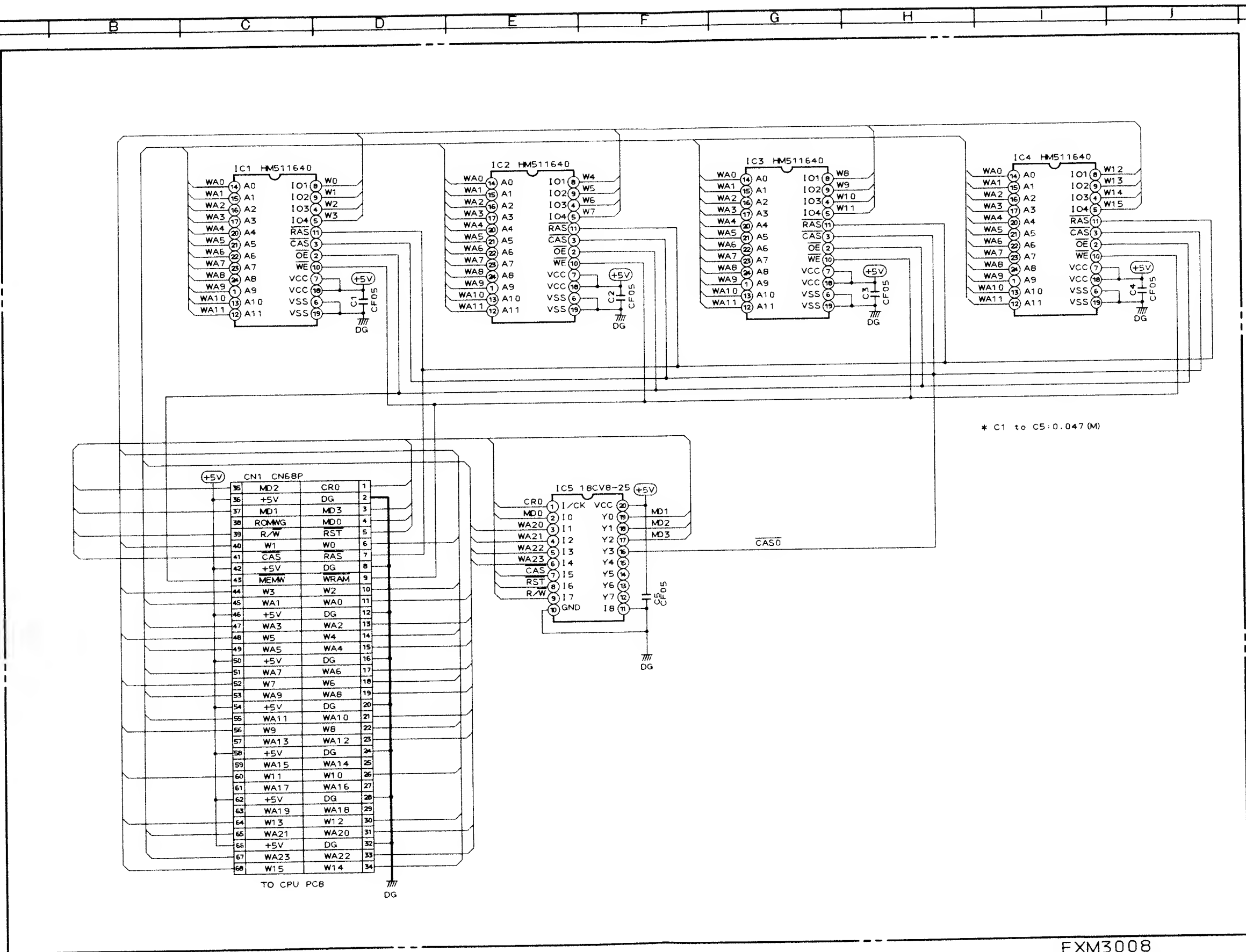SCHEMATIC DIAGRAM
NO.13-10 L401210M

SCSI/D IN PCB   L4012B509B

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN µF (P=PF)/50V (Z)
ALL ELECTROLYTIC CAPACITORS IN µF/WV

WAVE—MEMORY PCB   L6028B5030

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

MPC3000
WAVE MEMORY
SCHEMATIC DIAGRAM
NO.13—11 L602805F

26

WAVE-MEMORY PCB L6028B5030

8M-MEMORY PCB L5110B5010   EXM3008
(OPTIONAL BOARD)

IC1 HM511640
IC2 HM511640
IC3 HM511640
IC4 HM511640

* C1 to C5:0.047(M)

CN1 CN68P
IC5 18CV8-25

CAS0

TO CPU PCB

8M—MEMORY PCB L5110B5010

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV

EXM3008
8M—MEMORY (OPTIONAL)
SCHEMATIC DIAGRAM
No.13-12 L602806M

IB-CRT PCB   L3022C501A

CRT JACK PCB   L3022C501B

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

IB-CRT
(OPTIONAL)
SCHEMATIC DIAGRAM
NO.13-13 L401211M
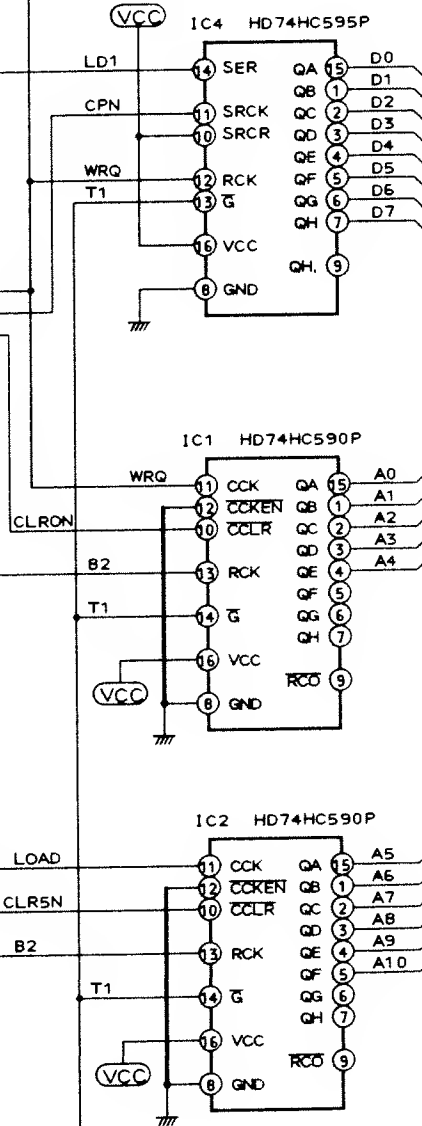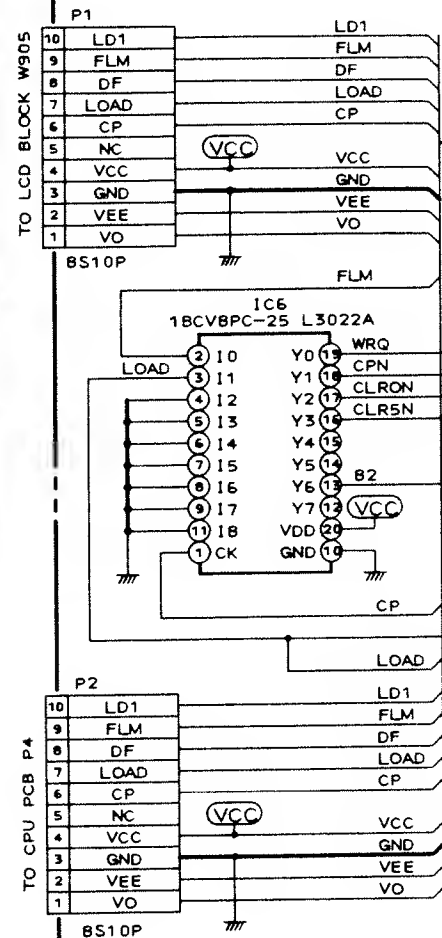
INFORMATION OF ICs

| NAME OF IC	FUNCTION
AK5328-VP	18 bit stereo A/D converter with 64 fs over-sampling digital filter
AM27C020-150DC	2 Mbit CMOS EP-ROM
AM27C256-150DC	256 k bit E-P ROM
HD74AC00P	Quad 2 input NAND gate
HD74AC86P	Quad exclusive OR gate
HD74HC00P	Quad 2 input NAND gate
HD74HC02P	Quad 2 input NOR gate
HD74HC04P	Hex inverter
HD74HC08P	Quad 2 input AND gate
HD74HC32P	Quad 2 input OR gate
HD74HC138P	3 to 8 line decoder
HD74HC155P	Dual 2 to 4 line decoder/De-multiplexer
HD74HC173P	3 state quad D type Flip-Flop
HD74HC175P	Quad D type Flip-Flop with clear
HD74HC245P	Octal 3 state transceiver
HD74HC259P	8 bit addressable latch/3 to 8 line decoder
HD74HC365P	Hex 3 state buffer
HD74HC573P	3 state octal D-type latch
HD74HC595P	8 bit shift registers with output latches
HM514400BZ-8	1 M X 4 bit RAM
HM658512LP-85	524,288 word X 8 bit C-MOS static RAM
I-0055	SMPTE timecode reader
L7A1045 L6028 DSP-A	18 bit Digital signal processor
LA6339	Quad comparator
LC3517BSL-15	2048 word X 8 bit static RAM
LC7981	Dot matrix type LCD controller
LM393N	Low offset voltage dual comparator
LM2940CT-5.0	+5 V regulator
M5216L	High output level OP-AMP
M5220L	Dual low noise PRE-AMP
M5238AL	Dual low noise J-FET input OP-AMP
M51953BL	Reset pulse generator
M51955BL	Reset pulse generator
MB89254	Triple programmable counter
MB89255B-P-G	Parallel data I/O interface
MB89352A-P-G	SCSI protocol controller
NJM5532D-D	Low noise dual OP-AMP
NJM78L05A	+5 V regulator
NJM7805FA	+5 V regulator
NJM7812FA	+12 V regulator
NJM7905FA	−5 V regulator
NJM7912FA	−12 V regulator
PCM69AP-4	18 bit serial input D/A converter
PQ30RV1	Variable regulator (2.85 V in MPC3000)
SI3052V	+5 V regulator
SM5841HP	18 bit input 8 fs over-sampling digital filter
μPC812C-AK	Dual low drift J-FET input OP-AMP
μPD78C10AGQ-36	16 bit micro processor
μPD70236GD-16	16 bit micro processor
μPD72069GF-3BA	FDD controller
TC74HC4072AP	Dual 4 input OR gate
TE7774	4-ch BUS transceiver
YM3623B	Receiver for Digital audio interface formatted signal
18CV8PC-15	E²C-MOS programmable logic device
18CV8PC-25	E²C-MOS programmable logic device

32

18CV8PC-15 (E²C-MOS programmable logic device)
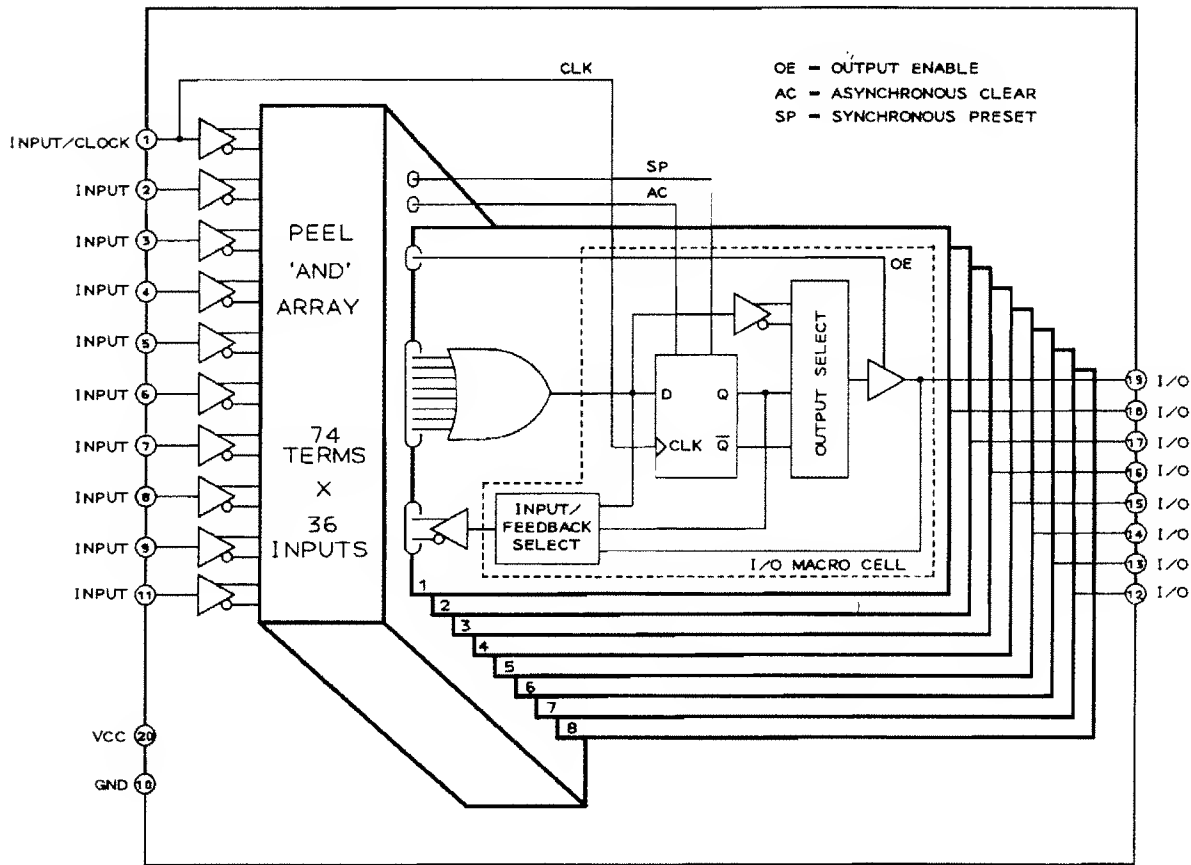
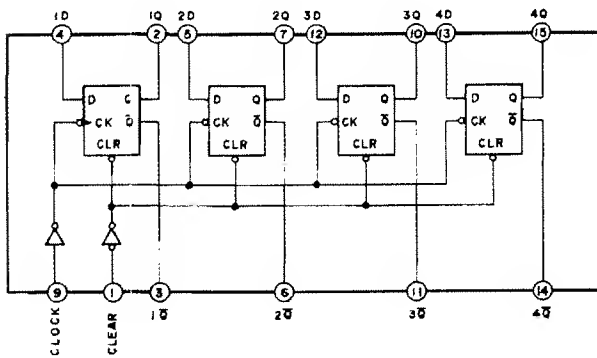## AK5328-VP (18 bit stereo A/D converter with 64 fs over-sampling digital filter)
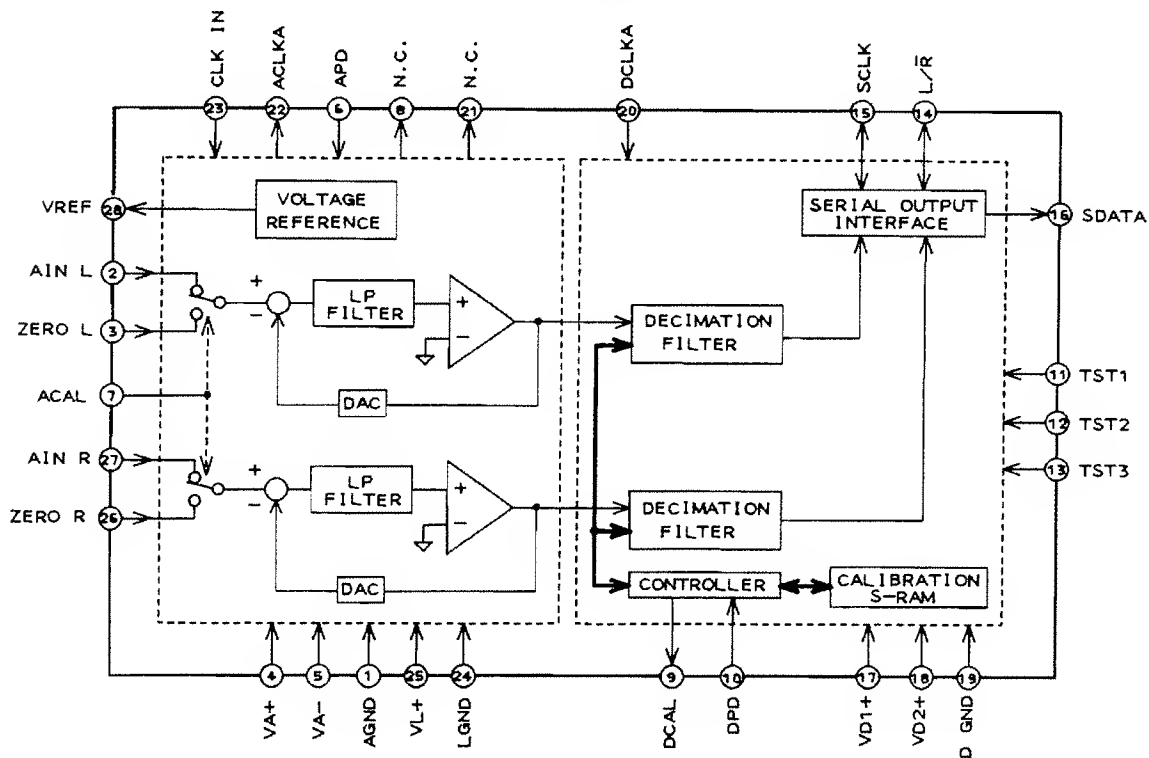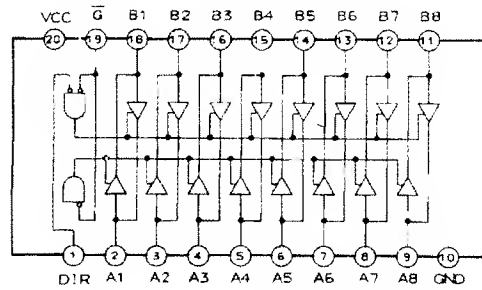
HD74HC173P (3 state quad D type Flip-Flop)
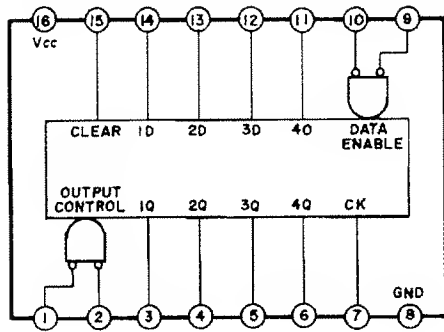
TRUTH TABLE

INPUT						OUTPUT	OPERATION
		ENABLE		OUTPUT CONTROL		Qa ~ Qd	
CLEAR	CK	G1	G2	M	N		
L		L	L	—		1D ~ 4D	OATA SET
L	⎍	H	X	—		—	HOLO
		X	H				
⎍	X	X	X	—		LLLL	CLEAR
				H	X	Z	—
				X	H		

HD74HC175P (Quad D type Flip-Flop with clear)

HD74HC245P (Octal 3 state transceiver)

FUNCTION TABLE

CONTROL INPUTS		OPERATION
G	DIR	
L	L	B DATA TO A BUS
L	H	A DATA TO B BUS
H	X	ISOLATION

HD74HC259P (8 bit addressable latch/3 to 8 line decoder)
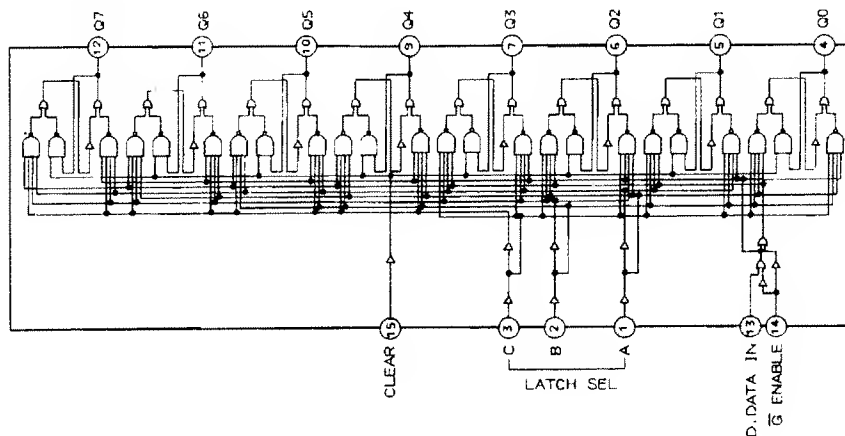
HD74HC365P (Hex 3 state buffer)
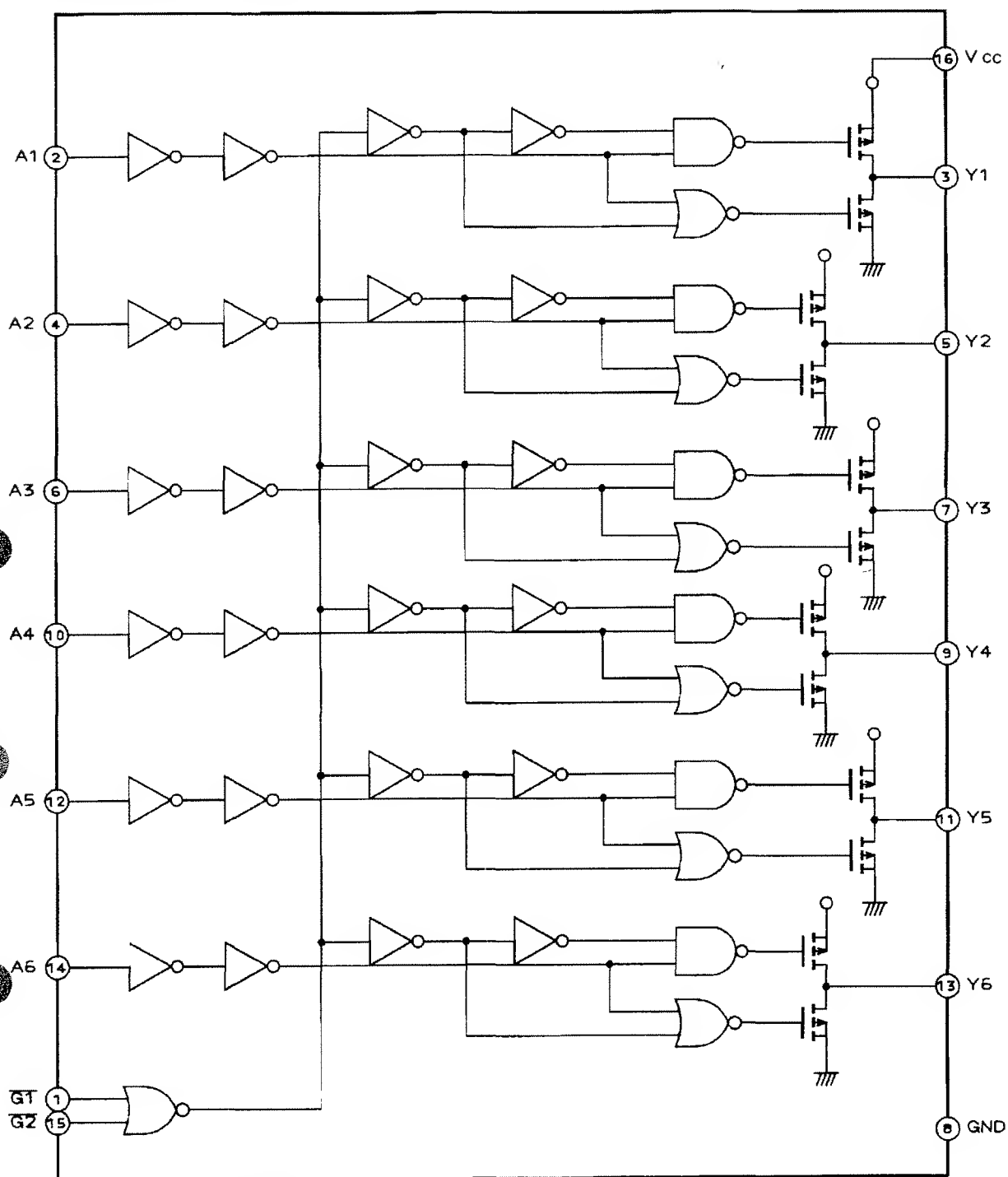
TRUTH TABLE

INPUT			OUTPUT
$\overline{G1}$	$\overline{G2}$	A	Y
H	X	X	Z
X	H	X	Z
L	L	L	L
L	L	H	H

HD74HC138P (3 to 8 line decoder)
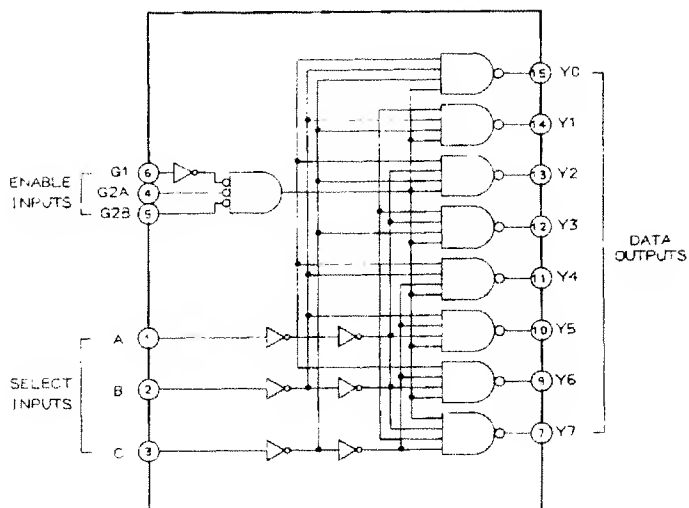
TRUTH TABLE

INPUTS					OUTPUTS							
ENABLE		SELECT										
G1	G2	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
X	H	X	X	X	H	H	H	H	H	H	H	H
L	H	X	X	X	H	H	H	H	H	H	H	H
H	L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	H	H	L	H	H	H	H	H	H
X	H	X	X	X	H	H	L	H	H	H	H	H
H	L	L	H	L	H	H	H	L	H	H	H	H
H	L	L	H	H	H	H	H	H	L	H	H	H
H	L	H	L	L	H	H	H	H	H	L	H	H
H	L	H	H	L	H	H	H	H	H	H	L	H
H	L	H	H	H	H	H	H	H	H	H	H	L

HD74HC155P (Dual 2 to 4 line decoder/De-multiplexer)

TRUTH TABLE

Inputs				Outputs			
Select		Strobe	Data	1Y0	1Y1	1Y2	1Y3
B	A	1G	1C				
×	×	H	×	H	H	H	H
L	L	L	H	L	H	H	H
L	H	L	H	H	L	H	H
H	L	L	H	H	H	L	H
H	H	L	H	H	H	H	L
×	×	×	L	H	H	H	H

Inputs				Outputs			
Select		Strobe	Data	2Y0	2Y1	2Y2	2Y3
B	A	2G	2C				
×	×	H	×	H	H	H	H
L	L	L	L	L	H	H	H
L	H	L	L	H	L	H	H
H	L	L	L	H	H	L	H
H	H	L	L	H	H	H	L
×	×	×	H	H	H	H	H

33

HD74AC86P (Quad exclusive OR gate)

Vcc(14) B4(13) A4(12) Y4(11) B3(10) A3(9) Y3(8)

A1(1) B1(2) Y1(3) A2(4) B2(5) Y2(6) GND(7)
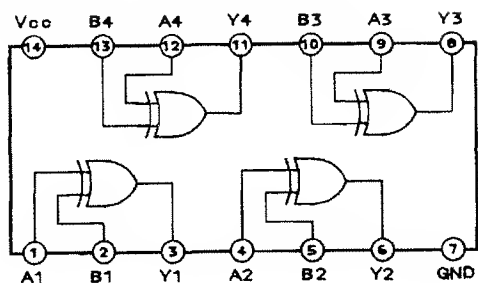
TRUTH TABLE

INPUTS		OUTPUTS
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	L

HD74HC00P (Quad 2 input NAND gate)

Vcc(14) B4(13) A4(12) Y4(11) B3(10) A3(9) Y3(8)

A1(1) B1(2) Y1(3) A2(4) B2(5) Y2(6) GND(7)
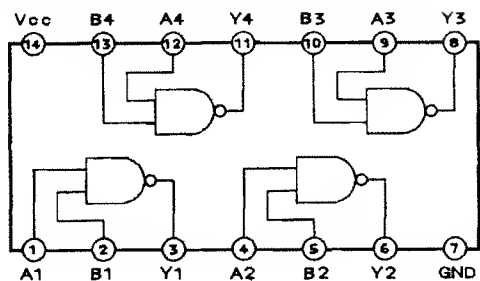
TRUTH TABLE

INPUTS		OUTPUTS
A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

HD74HC02P (Quad 2 input NOR gate)

Vcc(14) Y4(13) B4(12) A4(11) Y3(10) B3(9) A3(8)

Y1(1) A1(2) B1(3) Y2(4) A2(5) B2(6) GND(7)
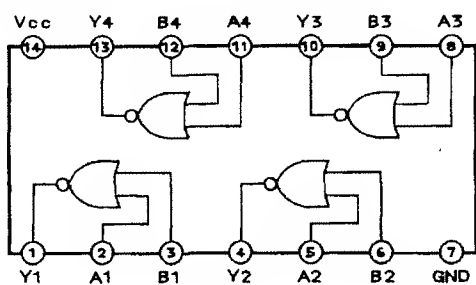
TRUTH TABLE

INPUTS		OUTPUTS
A	B	Y
L	L	H
L	H	L
H	L	L
H	H	L

HD74HC04P (Hex inverter)

VCC(14) 6A(13) 6Y(12) 5A(1) 5Y(10) 4A(9) 4Y(8)

1A(1) 1Y(2) 2A(3) 2Y(4) 3A(5) 3Y(6) GND(7)

HD74HC08P (Quad 2 input AND gate)

Vcc(14) B4(13) A4(12) Y4(11) B3(10) A3(9) Y3(8)

A1(1) B1(2) Y1(3) A2(4) B2(5) Y2(6) GND(7)
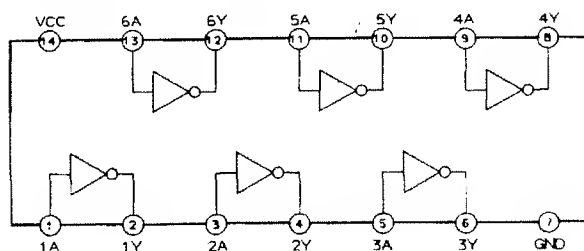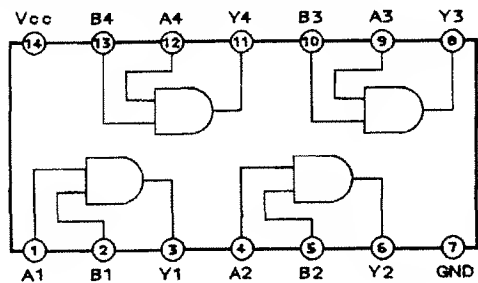
TRUTH TABLE

INPUTS		OUTPUTS
A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

HD74HC32P (Quad 2 input OR gate)

Vcc(14) B4(13) A4(12) Y4(11) B3(10) A3(9) Y3(8)

A1(1) B1(2) Y1(3) A2(4) B2(5) Y2(6) GND(7)
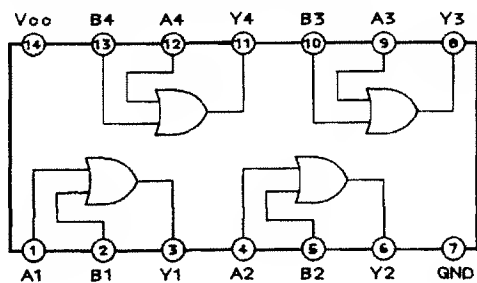
HD74HC573P (3 state octal D-type latch)
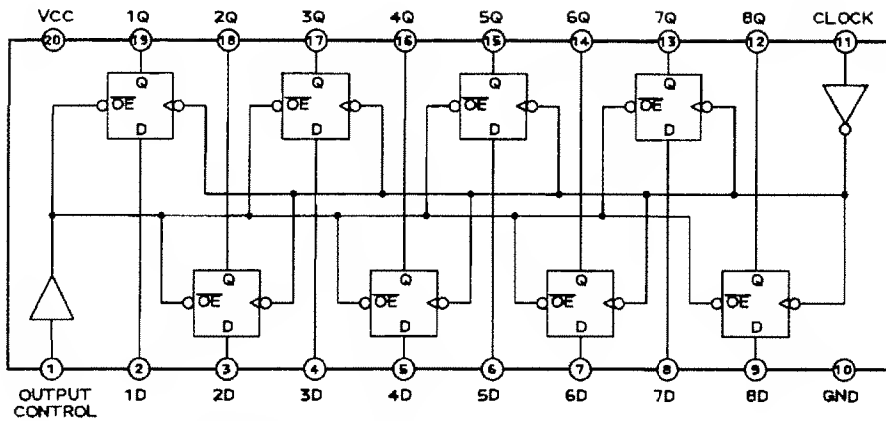
TRUTH TABLE

OUTPUT CONTROL	LATCH ENABLE	DATA	OUTPUT
L	H	H	H
L	H	L	L
L	L	X	Q_0
H	X	X	Z

HM658512LP-85 (524,288 word X 8 bit C-MOS static RAM)
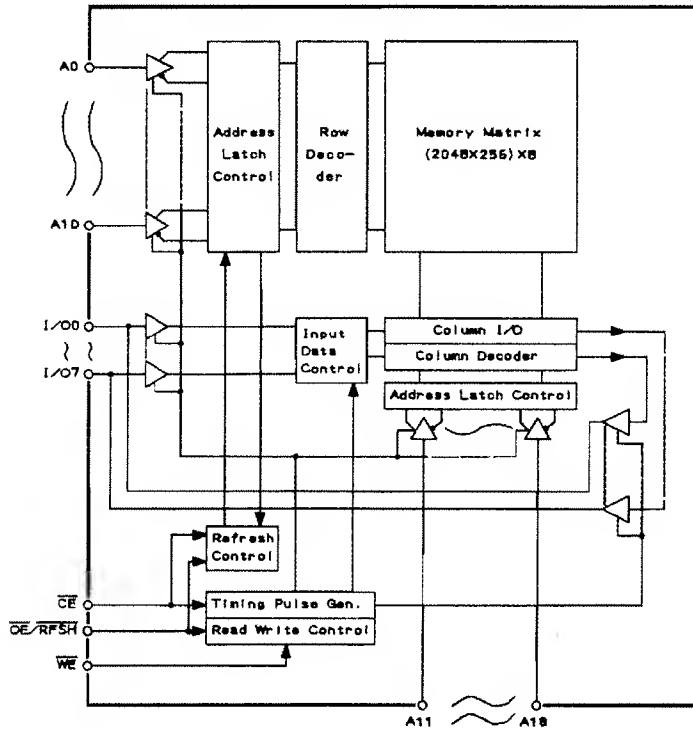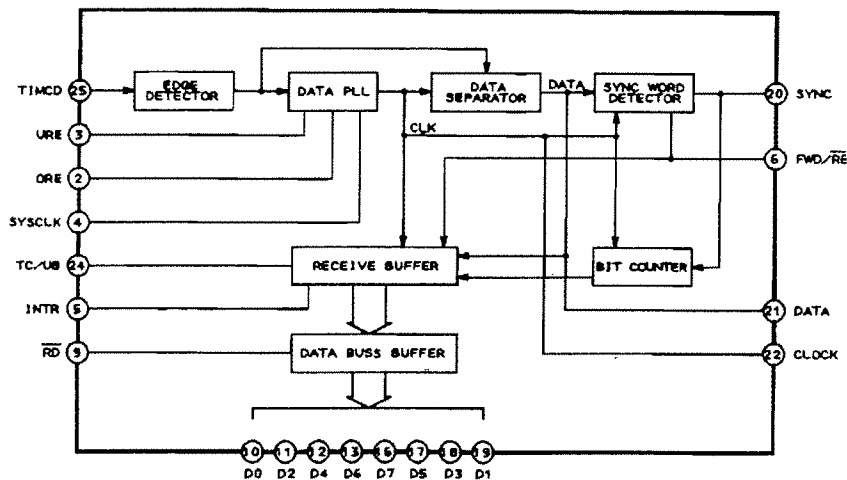
I-0055

I-0055 (SMPTE timecode reader)

PIN No.	SYMBOL	FUNCTION			
1, 15	GROUND				
14, 28	Vcc	−5VDC			
2	ORE	Internal Register Overflow			
3	URE	Internal Register Underflow			
4	SYSCLK	Input for system clock-To 10 MHz			
5	INTR	Active when a new Time Code Word has been stored in the internal buffer.			
6	FWD/$\overline{REV}$	Tape Direction Indicator HIGH = FWD LOW = REV			
7	AO	Output Word Select-Selects which word is presented to Data Output 00-07			
8	A1	A0	A1	Output Word Selected	
		0	0	Frame	
		1	0	Seconds	
		0	1	Minutes	
		1	1	Hours	
9	$\overline{RD}$	Output Enable-Data is available at Data Outputs 00-07 when RD is active.			
10	D0	Data Output 0			
11	D2	Data Output 2			
12	D4	Data Output 4			
13	D6	Data Output 6			
16	D7	Data Output 7			
17	D5	Data Output 5			
18	D3	Data Output 3			
19	D1	Data Output 1			
20	SYNC	Outputs a pulse two clock periods wide when the Time Code SYNC word has been read completely.			
21	DATA	Serial NRZ Data Output, Format:NRZ 1			Level: TTL
22	CLOCK	Time Code Clock [clock rate derived from Time Code]			
23	$\overline{TESTEN}$	Test Enable-Must be HIGH for normal operation			
24	TC/$\overline{UB}$	Time code or User Bits select Input HIGH = Time Code LOW = User Bits			
25	TIMCO	Longitudinal Time Code Input at TTL levels			
26	TEST B	Test Input B-Must be HIGH for normal operation			
27	TEST A	Test Input A-Must be HIGH for normal operation			

PIN No.	PORT NAME	I/O	FUNCTION
1,15,25,30,31,44 60,61,71,81,90,91 100,111,120	Vdd	—	+5 V power supply pin.
2	LSIGN	I	Chip select input.
3~5	CA3~CA1	I	Host CPU address bus.
6,16,27,35,45,54 62,75,88,106,110	Vss	—	To be grounded.
7~14,17~24	C15~C0	I/O	Host CPU, DMA data bus.
26	DMARQF	O	DMA request output (High active).
28	DMAKFN	I	DMA acknowledge input (low active).
29	TEST	I	To be used for function test.
32	IOGN	I	Host CPU, DMA read input (low active).
33	IOWN	I	Host CPU, DMA write input (low active).
34	RST	I	System reset signal input (low active).
36	RDYFN	O	Host CPU read/write ready output (low active)
37	ROUT	O	Serial data output for D/A converter
38	LOUT	O	Serial data output for D/A converter and digital audio transmitter.
39	LRWDKN	O	DAC word clock output for left-mix and right-mix.
40	123WDKN	O	DAC word clock output for individual 2 and 3.
41	101WDKN	O	DAC word clock output for individual 0 and 1.
42	BTCK	O	Data catch clock output for DAC and digital audio transmitter.
43	DAWDK	O	Word clock output for digital audio transmitter.
46~53,63~70 72~74,76~80	A23~A0	O	Address outputs for the wave memory (RAM/ROM).
55	ZTN	I	test pin for tri-state test. (Connect to Vdd in normal condition.)
56~59	TA0~TA3	I	Input pin for the function test. (Connect to the Vss in normal condition.)
82	CASN	O	Column address strobe output for the wave memory (RAM) (low active).
83	RASN	O	Row address strobe output for the wave memory (RAM) (low active).
84	MEMWGN	O	Output enable out for the wave memory. (low active)
85	WRAMWN	O	Read/write output for the wave memory. (low active)
86	ROMWGN	O	Chip enable output for the wave memory (ROM). (low active)
87	TEST OUT	O	Output pin for parametric test. (Open in normal condition.)
89	TG	I	Input pin for the function test.
92~99,101~105 112~114	W0-W15	I/O	Data bus for the wave memory.
107	CLK	I	System clock input (768 times of the sampling-rate).
108	U0IN	I	Serial data input for the second LSI.
109	U1IN		
115	U0OUT	O	Serial data output for the second LSI.
116	U1OUT		
117	USYNC	O	Sync signal output for the second LSI.
118	RSTON	O	System reset output for the second LSI.
119	T0B1	O	System clock output for the second LSI.

LC7981
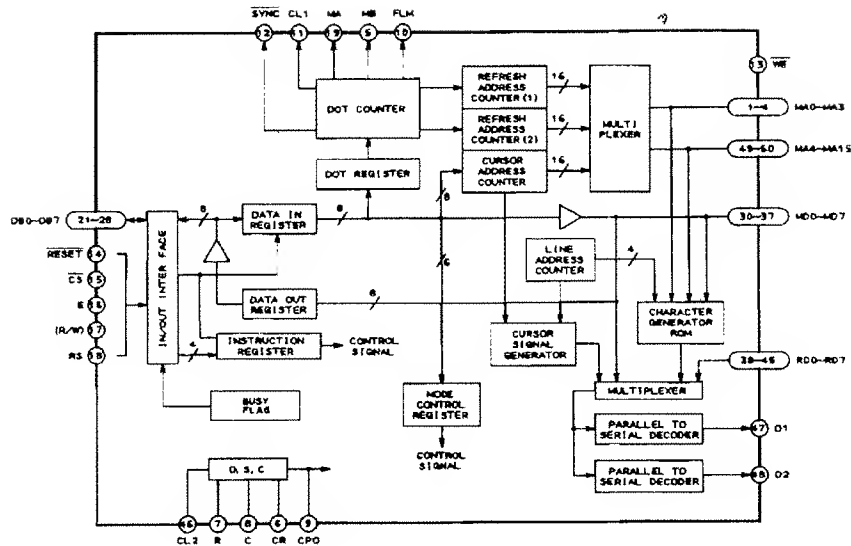
PIN No.	SYMBOL	FUNCTION
1 to 4 49 to 60	MA 0 to 15	Display RAM address out
5	MB	LCD drive signal (B type)
6 7 8	C R CR	CR connect pin for osc
9	CPO	Slave clock
10	FLM	Frame signal
11	CL 1	Display data latch signal
12	SYNC	Parallel drive sync
13	WE	Write enable
14	RESET	Reset
15	CS	Chip select
16	E	Enable
17	R/W	Read/Write
18	RS	Register
19	MA	LCD drive signal (A type)
20	GND	Ground
21 to 28	DB 0 to 7	Data bus
29	VDD	+ 5 V
30 to 37	MD 0 to 7	Display data bus
38 to 45	RD 0 to 7	ROM data in
46	CL 2	Display data shift clock
47 48	D1 D2	Display data serial out D1 .... Upper frame D2 .... Lower frame

M51955BL (Reset pulse generator)

VDD ①   N.C ④

IN ②

1.25V

⑤ OUT

③ GND

MB89255B-P-G (Parallel data I/O interface)

(5V) Voo ㉕
(0V) GND ⑦

GROUP A CONTROL

GROUP A PORTA A (8bit)

⑨ PA₇
㉚ PA₆
㉝ PA₆
㉞ PA₄
① PA₃
② PA₂
③ PA₁
④ PA₀

I/O PORT A

DATA BUS
D₇ ㉗
D₆ ㉘
D₅ ㉙
D₄ ㉚
D₃ ㉛
D₂ ㉜
D₁ ㉝
D₀ ㉞

DATA BUS A BUFFER

GROUP A PORT C (4bit)

⑩ PC₇
⑪ PC₆
⑫ PC₅
⑬ PC₄

I/O PORT C

GROUP A PORT C (4bit)

⑰ PC₃
⑯ PC₂
⑮ PC₁
⑭ PC₀

READ IN RD ⑤
WRITE IN WR ㉟
ADDRESS IN A₁ ⑧
A₀ ⑨
RESET IN ㉟
CHIP SELECT CS ⑥

READ/WRITE CONTROL

GROUP B CONTROL

GROUP B PORT B (8bit)

㉕ PB₇
㉔ PB₆
㉓ PB₆
㉒ PB₄
㉑ PB₃
⑳ PB₂
⑲ PB₁
⑱ PB₀

I/O PORT B

PCM69AP-4 (18 bit serial input D/A converter)

```
+B FOR ANALOG ———①+VCC        +VDD⑯——— +B FOR DIGITAL
   V COMMON (L) ◄——②VCOM (L)      TP1⑮——— TEST TERMINAL 1
CURRENT OUT (L) ◄——③I—OUT (L)  DATA (L)⑭◄——— DATA INPUT (L)
   SERVO FILTER ◄——④SERVO DC     WDCK⑬◄——— WORD CLOCK INPUT
REFERENCE FILTER ◄——⑤REF DC   SYS—CLK⑫◄——— SYSTEM CLOCK INPUT
CURRENT OUT (R) ◄——⑥I—OUT (R)     BCK⑪◄——— BIT CLOCK INPUT
   V COMMON (R) ◄——⑦VCOM (R)   DATA (R)⑩◄——— DATA INPUT (R)
     ANALOG GND ———⑧A.GND       D.GND⑨——— DIGITAL GND
```

BM5841HP (18 bit input 8 fs over-sampling digital filter)

PIN No.	PORT NAME	I/O	FUNCTION
1,6*	WSL1~2	I	IN/OUT data word length select pin.
2	CKI	I	System clock input.
3	CKSL	I	System clock select control (H : 384 fs, L : 256 fs).
4	CKO	O	System clock output pin (Bufferred output of CKI).
5	Vss	—	To be grounded.
7,8*	DSF1~2	I	De-emphasis select control.
9	RST	I	System reset pin.
10	BCKO	O	Bit clock output.
11	DOR	O	R-ch 8 fs data output.
12	DOL	O	L-ch 8 fs data output.
13	WCKO	O	Word clock output.
14	Vdd	—	+5 V power supply pin.
15	OFST	I	DC off-set adding pin to the output data.
16	LRCI	I	Sampling rate (fs) clock of the input data.
17	BCKI	I	Input bit clock.
18	DIN	I	Input data.

*NOTE

Setting		Noise shaper	IN/OUT data word length	
WSL1	WSL2		input bit number	output bit number
H	H	OFF	18 bit	20 bit
H	L	ON	18 bit	18 bit
L	H	ON	16 bit	18 bit
L	L	ON	16 bit	16 bit

Setting		De-emphasis	
DSF1	DSF2	ON/OFF selection	fs selection
L	L	ON	44.1 kHz
L	H	ON	48.0 kHz
H	H	ON	32.0 kHz
H	L	OFF	—

TC74HC4072AP (Dual 4 input OR gate)
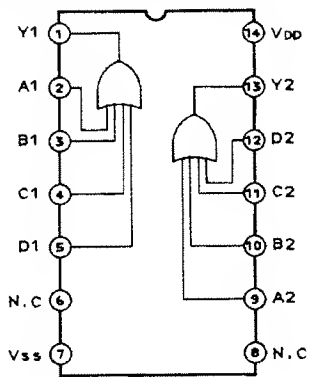
YM3623B (Receiver for Digital audio interface formatted signal)

PIN No.	PORT NAME	I/O	FUNCTION
1	Vdd1	−	+5 V power supply pin for system.
2	ADJ	I	VCO oscillating frequency adjusting pin.
3	VCO	I/O	Capacitor connecting pin for the VCO circuit.
4	Vss2	−	Ground pin for the VCO circuit.
5	XO	O	Crystal connecting pin.
6	XI	I	
7	$\overline{KMODE}$	I	H : PLL circuit will operate when DIN pin receives input signal. System uses crystal oscillator when DIN pin has no input signal. L : System uses crystal oscillator whichever DIN pin receives signal or not.
8	ΦA	O	16.9344 MHz output (when the crystal oscillator is used). Output frequency varies according to the DIN input when the PLL circuit is operating.
9	ΦB	O	1/3 frequency of the ΦA (when the crystal oscillator is used). Output frequency varies according to the DIN input when the PLL circuit is operating.
10,11	$\overline{T1}, \overline{T2}$	I	Internal circuit check pins.
12	BCO	O	Timing clock for the output signal from DO pin.
13	$\overline{SYNC}$	O	Synchronization signal.
14	Vss1	O	Ground pin for system.
15	L/$\overline{R}$	O	Identification signal between L-ch and R-ch. (H : L-ch, L : R-ch)
16	DEF	O	H indicates that the input data is emphasised. L indicates that the input data is not emphasised.
17	DO	O	16 bit data output.
18	WC	O	This pin indicates that the output data is being output from the DO pin.
19	DIGR	O	signal out for R-ch deglitching.
20	DIGL	O	signal out for L-ch deglitching.
21	ERR	O	H indicates parity error or crystal oscillator is operating. L indicates there is no error.
22	SEL	I	Refer to the "NOTE"
23	S1	O	
24	S2	O	
25	SCK	O	Clock out for subcode output.
26	SSYNC	O	Signal for subcode.
27	SDO	O	Subcode data output pin.
28	DIN	I	Data input pin.

*NOTE : Relations between the SEL, S1 and S2

INPUT	OUTPUT		OUTPUT	
SEL	S1	Function	S2	Function
L	L	Copy prohibited	L	CD (except DAT)
	H	Copy possible	H	DAT
	L		L	The sampling frequency of the DIN signal is 44.1 kHz
H	L		H	48 kHz
	H		H	32 kHz
	H		L	−

µPD72069GF-3BA (FDD controller)

PIN No.	PORT NAME	I/O	FUNCTION
1,3,15,17,19 25,28,29,44, 52~54,64,66, 77,79,84,88,	NC	–	No Connection.
2,6,9,12,37,40 61,81,92,95,98	GND3	–	Ground 3
4,5,7,100	EM0~3	O	Enable Motor.
8	DIR	O	Direction.
10	STEP	O	Step.
11	WDATA	O	Write data.
13	WE	O	Write Enable.
14	ENIDX	I	Enable Index.
16	VDD2	–	+5 V.
18,20	CGP1,2	O	Charge Pump.
21	GND2	–	Ground 2.
22,23	LPF1,2	O	Low Pass Filter.
24	TRKO	I	Track 0.
26	WPRT	I	Write Protected.
27	RDATA	I	Read Data.
30	READY	I	Ready.
31	2SIDE	I	Two Side.
32	FLT	I	Fault.
33	ENPCS	I	Enable Pre-Compensation.
34	ACTL	I	Active Level.
35	MSEL	I	Mode Select.
36	SIDE	O	Side Select.
38	FLTR	O	Fault Reset.
39	HDLD	O	Head Load.
41	LCT	O	Low Current.
42,43	VDD1	–	+5 V.
45	RESET	I	Reset.
46	RD	I	Read.
47	WR	I	Write.
48	ENRW	I	Enable Read, Write.
49	RSEL	I	Registers Select.
50	CS	I	Chip Select.
51	A0	I	Address 0.
55,56,85,89,90	GND1	–	Ground 1.
57~60 62,63,65,67	D0~D7	I/O	Data Bus.
68	DMARQ	O	DMA Request.
69	DMAAK	I	DMA Acknowledge.
70	TC	I	Terminal Count.
71	INT	O	Interrupt Request.
72	FMT	I	Format.
73~75	DR0~DR2	I	Data Rate.
76	INDEX	I	Index.
78,80	PCS0,PCS1	I	Pre-Compensation.
82,83	XA1,XA2	–	Crystal A connecting terminals.
86,87	XB1,XB2	–	Crystal B connecting terminals.
91,93	DEN0,DEN1	O	Density.
94,96,97,99	DS0~DS3	O	Drive Select.